

RE: 10/565,331

Please search formula in claims 12 and 13 against commercial and $\frac{1}{2}$ Interforance daughases,

Chanks, 1

Acon Art Mail 1684 Diffice REM 0A00 Mail REM 0CV0 Tel (571) 272-0046

Searcher: Standar: Phone: Data Resided: Phote: up: Pate domplates: Boardle: Dimo "Phe; Online Tine;

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=> d que 11

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-565331/APPS

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:121065 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 142:204915

TITLE: Antibody-toxin conjugates

INVENTOR(S): Defrees, Shawn; Wang, Zhi-Guang
PATENT ASSIGNEE(S): Neose Technologies, Inc., USA

SOURCE: PCT Int. Appl., 126 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA. | PATENT NO. | | | | KIND DATE | | | APPLICATION NO. | | | | | DATE | | | | | |
|---------|----------------------|------|-----|-----|------------|-----|------|-----------------|-----|------|------|-------|------|-----|------------|------|-------|--|
| | 2005 | | - | | A2 | | 2005 | | , | WO 2 | 004- | JS24 | 042 | | 2 | 0040 | 726 | |
| WO | 2005 | 0124 | 84 | | A 3 | | 2007 | 0524 | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | ΑM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | ΒZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, | |
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| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | |
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| | | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | ΙE, | IT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | |
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| | | SN, | TD, | ΤG, | AP, | EA, | EP, | OA | | | | | | | | | | |
| US | US 20070059275 | | | | A1 | | 2007 | 0315 | | US 2 | 006- | 5653. | 31 | | 2 | 0060 | 911 < | |
| PRIORIT | IORITY APPLN. INFO.: | | | .: | | | | | | US 2 | 003- | 4901 | 68P | | P 20030725 | | | |
| | | | | | | | | | | US 2 | 003- | 4994 | 48P | | P 2 | 0030 | 902 | |
| | | | | | | | | | , | WO 2 | 004- | JS24 | 042 | | W 2 | 0040 | 726 | |
| | _ | _ | | | | | | | | | | | | | | | | |

ED Entered STN: 11 Feb 2005

In response to the need for improved site-specific delivery of toxins to the AB loci of disease, the present invention provides antibodies that are modified with toxins. The invention provides a unique class of conjugates in which the toxin is attached to the antibody through a glycosyl linking group, e.g., an intact glycosyl linking group, which is attached to the peptide (or to an acceptor moiety attached to the peptide, e.g. a spacer or amplifier) utilizing an enzymically-mediated coupling reaction. Thus, in a first aspect, the present invention provides a peptide conjugate in which the sugar-toxin construct (modified sugar) is attached to a peptide. For example, the invention provides a peptide conjugate having the formula: Ab-G-L-T wherein Ab is an antibody, or other targeting moiety; G is a glycosyl linking group, e.g., an intact glycosyl linking group, covalently joining Ab to L; L is a bond or a spacer moiety covalently joining G to T; and T is a toxin, or other therapeutic agent. In a second aspect, the invention provides a compound having the formula: S-L-T wherein S is a nucleotide sugar; L is a bond or a spacer moiety covalently joining S to T; and T is a toxin moiety.

IC ICM C12N CC 63-8 (Pharmaceuticals) Section cross-reference(s): 15 ST antibody toxin sugar conjugate drug delivery system cancer Antibodies and Immunoglobulins ΙT RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugates with toxins; therapeutic antibody-toxin conjugates involving a glycosyl linking group) ΙT Toxins RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cytotoxins, conjugates with sugars and antibodies; therapeutic antibody-toxin conjugates involving a glycosyl linking group) Drug delivery systems ΙT (immunotoxins; therapeutic antibody-toxin conjugates involving a glycosyl linking group) ΙT Carbohydrates, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nucleotide sugar-toxin conjugates; therapeutic antibody-toxin conjugates involving a glycosyl linking group) Antitumor agents ΤТ Neoplasm (therapeutic antibody-toxin conjugates involving a glycosyl linking Polyoxyalkylenes, biological studies ΤT RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (therapeutic antibody-toxin conjugates involving a glycosyl linking group) 25322-68-3, PEG ΤТ RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (linker; therapeutic antibody-toxin conjugates involving a glycosyl linking group) => d que 13 2 SEA FILE-WPIX ABB-ON PLU-ON US2006-565331/APPS L2 1 SEA FILE=WPIX ABB=ON PLU=ON L2 NOT PRINTER/TI L3 => d iall code 13 YOU HAVE REQUESTED DATA FROM FILE 'WPIX' - CONTINUE? (Y)/N:y ANSWER 1 OF 1 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN ACCESSION NUMBER: 2005-152442 [16] WPIX DOC. NO. CPI: C2005-049422 [16] TITLE: New peptide conjugates formed between toxins and sugars or sugar nucleotides or between these species and a peptide useful for treating and diagnosing inflammation and tumor metastasis DERWENT CLASS: A96; B04; D16 DEFREES S; WANG Z INVENTOR: PATENT ASSIGNEE: (NEOS-N) NEOSE TECHNOLOGIES INC; (DEFR-I) DEFREES S; (WANG-I) WANG Z COUNTRY COUNT: 106 PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

MAIN IPC

WO 2005012484 A2 20050210 (200516)* EN 126[0]
US 20070059275 A1 20070315 (200722) EN

APPLICATION DETAILS:

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PATENT NO KIND
                                         APPLICATION DATE
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     WO 2005012484 A2
                                         WO 2004-US24042 20040726
     US 20070059275 A1 Provisional US 2003-490168P 20030725 US 20070059275 A1 Provisional US 2003-499448P 20030902 US 20070059275 A1 WO 2004-US24042 20040726
     US 20070059275 A1
                                          US 2006-565331 20060911
PRIORITY APPLN. INFO: US 2003-499448P 20030902
                      US 2003-490168P
                                         20030725
                       US 2006-565331 20060911
INT. PATENT CLASSIF.:
                     A61K0039-395 [I,A]; A61K0039-395 [I,C]; C07K0016-46 [I,A]
  IPC ORIGINAL:
                     ; C07K0016-46 [I,C]; C08G0063-00 [I,C]; C08G0063-91 [I,A]
                     ; C08L0089-00 [I,A]; C08L0089-00 [I,C]
IPC RECLASSIF.: C12N [I,S]
USCLASS NCLM: 424/078.270
                    424/178.100; 525/054.100; 530/391.100; 977/906.000
       NCLS:
BASIC ABSTRACT:
           WO 2005012484 A2 UPAB: 20050708
            NOVELTY - Peptide conjugates formed between toxins and sugars or sugar
     nucleotides or between these species and a peptide are new.
            DETAILED DESCRIPTION - Peptide conjugates formed between toxins and
     sugars or sugar nucleotides or between these species and a peptide which have
     compounds of formula Ab-G-L-T (I) or S-L1-T1 (II), are new.
            Ab = antibody;
            G = intact glycosyl linking group covalently joining Ab to L;
            L,L1 = bond or a spacer group covalently joining G to T;
            T = toxin;
            S = nucleotide sugar; and
            T1 = toxin group.
            ACTIVITY - Antiinflammatory; Cytostatic; Neuroprotective.
            No biological data given.
            MECHANISM OF ACTION - None given.
            USE - The peptide conjugates are useful for treating and diagnosing
     inflammation, neurological disorders and tumor metastasis; and as drug
     delivery systems.
            ADVANTAGE - The conjugates show minimum side effects and are highly
efficacious.
                     CPI: A10-E01; A12-V01; A12-V03C2; B04-C01H; B04-C03C;
MANUAL CODE:
                     B04-G01; B11-C08; B12-K04A; B14-C03; B14-H01B; B14-J01;
                     D05-H11
AN 2005-152442 [16] WPIX
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IPCI A61K0039-395 [I,A]; A61K0039-395 [I,C]; C07K0016-46 [I,A]; C07K0016-46
     [I,C]; C08G0063-00 [I,C]; C08G0063-91 [I,A]; C08L0089-00 [I,A];
     C08L0089-00 [I,C]
IPCR C12N [I,S]
NCL NCLM 424/078.270
    NCLS 424/178.100; 525/054.100; 530/391.100; 977/906.000
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MC CPI: A10-E01; A12-V01; A12-V03C2; B04-C01H; B04-C03C; B04-G01; B11-C08;
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B12-K04A; B14-C03; B14-H01B; B14-J01; D05-H11

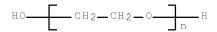
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RN
ED
     Entered STN: 16 Nov 1984
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OTHER NAMES:
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     \alpha-Hydro-\omega-hydroxypoly(oxy-1,2-ethanediyl)
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     1,2-Ethanediol, homopolymer
CN
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CN
     1660S
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CN
     Alkox
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CN
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    Alkox E 160
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     Alkox E 30G
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     Breox 2000
CN
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     Breox 4000
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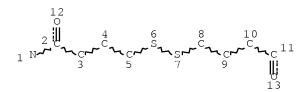
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CI
PCT Polvether
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LC
     STN Files:
       CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST,
       CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT,
       ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA,
      MEDLINE, MRCK*, MSDS-OHS, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER,
       TULSA, ULIDAT, USAN, USPAT2, USPATFULL, USPATOLD, VETU
         (*File contains numerically searchable property data)
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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26713 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
106285 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d que stat 135 L33 STR



NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED 2150 ITERATIONS

SEARCH TIME: 00.00.01

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| L13 | QUE ABB=ON PLU=ON TOXIN |
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| L15 | QUE ABB=ON PLU=ON AMPLIF? |
| L16 | QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? |
| L17 | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
| | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? |
| L18 | QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY |
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| | ?) |
| L19 | OUE ABB=ON PLU=ON PEG |
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120 ANSWERS

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               PTID? OR HEXAPEPTID?
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L49
               L9)
             1 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND L49
L50
            1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L49 OR L50)
L51
L52
            56 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 NOT L51
L53
            35 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND L10
=> d his 168
     (FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 09:18:02 ON 30 APR 2008)
L68
            11 S L65 AND L67
=> d que nos 168
             1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN
L4
L6
               QUE ABB=ON PLU=ON DEFREES, S?/AU
               QUE ABB=ON PLU=ON DE FREES, S?/AU
L7
L8
               QUE ABB=ON PLU=ON WANG, Z?/AU
L9
               QUE ABB=ON PLU=ON NEOSE/CS, SO, PA
               OUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY
L10
               <2004 OR REVIEW/DT
L11
               OUE ABB=ON PLU=ON AB
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L12
               QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES
               ))
L13
               OUE ABB=ON PLU=ON TOXIN
L14
               QUE ABB=ON PLU=ON ?GLYCOSYL?
               QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?
L16
               QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?
L17
                OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?
L24
               QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC
               HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR
               QUE ABB=ON PLU=ON A61K0039-395/IPC
L29
               QUE ABB=ON PLU=ON A61K0039-44/IPC
L30
              QUE ABB=ON PLU=ON C07K0016-46/IPC
L31
L32
              QUE ABB=ON PLU=ON C07K0017-08/IPC
L33
               STR
L35
          120 SEA FILE=REGISTRY SSS FUL L33
L54
            19 SEA L35
L55
         29534 SEA L4
           549 SEA (L54 OR L55) AND (L29 OR L30 OR L31 OR L32)
L56
L57
             0 SEA L56 AND L54
L58
           549 SEA (L56 OR L57)
L59
           425 SEA L58 AND (L11/IT, TI, CC, CT, ST, STP OR L12/IT, TI, CC, CT, ST, STP)
L60
           58 SEA L59 AND L13/IT, TI, CC, CT, ST, STP
            37 SEA L60 AND L16/IT, TI, CC, CT, ST, STP
L61
            1 SEA L61 AND (L6 OR L7 OR L8 OR L9)
L62
L63
            36 SEA L61 NOT L62
L64
            28 SEA L63 AND L10
            21 SEA L64 AND (L14/IT, TI, CC, CT, ST, STP, BI, AB OR L24/IT, TI, CC, CT, ST
L65
               ,STP,BI,AB)
          9486 SEA ((L11 OR L12) (5A) (L16 OR L17))(10A) L13
L67
L68
            11 SEA L65 AND L67
=> d que 188
               QUE ABB=ON PLU=ON DEFREES, S?/AU
L6
L7
               QUE ABB=ON PLU=ON DE FREES, S?/AU
L8
               QUE ABB=ON PLU=ON WANG, Z?/AU
               QUE ABB=ON PLU=ON NEOSE/CS, SO, PA
L9
               QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY
L10
               <2004 OR REVIEW/DT
               QUE ABB=ON PLU=ON AB
L11
L12
               QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES
               ))
               QUE ABB=ON PLU=ON TOXIN
L13
               QUE ABB=ON PLU=ON ?GLYCOSYL?
L14
               QUE ABB=ON PLU=ON AMPLIF?
L15
L16
               QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?
L17
               QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?
                OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?
L18
               OUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY
               LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN
               ?)
L19
               QUE ABB=ON PLU=ON PEG
               QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?
L20
               POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID?
               OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?
               )) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(
               ETHYLENEOXID? OR ETHYLENEGLYCOL?))
L21
               QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (
```

| | | POLY(1T)OXY(1T)ETHANEDIYL) |
|--|------------|--|
| L22 | | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA |
| | | NE(W)DIYL))) |
| L23 | | QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPT ID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPE |
| | | PTID? OR HEXAPEPTID? |
| L24 | | QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC |
| | | HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR |
| - 00 | | PENTOS? |
| L29 L30 | | QUE ABB=ON PLU=ON A61K0039-395/IPC QUE ABB=ON PLU=ON A61K0039-44/IPC |
| L30 L31 | | QUE ABB=ON PLU=ON C07K0016-46/IPC |
| L32 | | QUE ABB=ON PLU=ON C07K0017-08/IPC |
| L70 | | QUE ABB=ON PLU=ON RA00C8/DCN OR 184587/DCR, DCRE, KW |
| L71 | | QUE ABB=ON PLU=ON (R00351 OR P8004)/PLE |
| L72 | | QUE ABB=ON PLU=ON "L8"/M0,M1,M2,M3,M4,M5,M6 |
| L73 | | QUE ABB=ON PLU=ON K224/M0, M1, M2, M3, M4, M5, M6 |
| L74 | | SEA FILE=WPIX ABB=ON PLU=ON L70 AND L71 |
| L75 L76 | | SEA FILE=WPIX ABB=ON PLU=ON L74 AND L72 SEA FILE=WPIX ABB=ON PLU=ON L75 AND L73 |
| ь70 ь77 | | SEA FILE=WPIX ABB=ON PLU=ON L76 AND L73 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L29 OR L30 OR L31 OR |
| 11,, | 12 | L32) |
| L79 | 852 | SEA FILE=WPIX ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR |
| | | L17))(20A)L13 |
| L80 | 1471 | SEA FILE=WPIX ABB=ON PLU=ON (((L11 OR L12) (5A)(L16 OR |
| L81 | 1.0 | L17))(20A)L23)(L)L13 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L77 OR (L79 OR L80)) |
| L82 | | SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L77 OR (L79 OR L80)) SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L79 OR L80) |
| L83 | | SEA FILE=WPIX ABB=ON PLU=ON (L81 OR L82) |
| L84 | 12 | SEA FILE=WPIX ABB=ON PLU=ON L83 AND (L11 OR L12 OR L13 OR |
| | | L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR |
| | | L23 OR L24) |
| L85 | | SEA FILE=WPIX ABB=ON PLU=ON (L83 OR L84) |
| L86 L87 | | SEA FILE=WPIX ABB=ON PLU=ON L85 AND (L6 OR L7 OR L8 OR L9) SEA FILE=WPIX ABB=ON PLU=ON L85 NOT L86 |
| L88 | | SEA FILE=WPIX ABB=ON PLU=ON L87 AND L10 |
| | | |
| | | |
| _ | ie nos 110 | |
| L4 L5 | 1 | SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25 |
| ПЭ | | 322-68-3DP" |
| L6 | | QUE ABB=ON PLU=ON DEFREES, S?/AU |
| L7 | | |
| | | QUE ABB=ON PLU=ON DE FREES, S?/AU |
| L8 | | QUE ABB=ON PLU=ON DE FREES, S?/AU QUE ABB=ON PLU=ON WANG, Z?/AU |
| L9 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS,SO,PA |
| | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS,SO,PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PY<2004 OR MY |
| L9 L10 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS,SO,PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT |
| L9 L10 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB |
| L9 L10 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES |
| L9 L10 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB |
| L9 L10 L11 L12 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES)) |
| L9 L10 L11 L12 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES)) QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
| L9 L10 L11 L12 L13 L16 L17 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES)) QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? |
| L9 L10 L11 L12 L13 L16 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES)) QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? OR BOND? OR CONJUGAT? OR COMPLEX? OR (POLY(1W)OXYALKY |
| L9 L10 L11 L12 L13 L16 L17 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES)) QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN |
| L9 L10 L11 L12 L13 L16 L17 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES)) QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY LEN?) OR (POLYOXY(1W)ALKYLEN?) ?) |
| L9 L10 L11 L12 L13 L16 L17 | | QUE ABB=ON PLU=ON WANG, Z?/AU QUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES)) QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN |

| | | 10/565,331 | | | | | | | |
|---------------|---|--|--|--|--|--|--|--|--|
| | | POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID? | | | | | | | |
| | OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL? | | | | | | | | |
| | |)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(ETHYLENEOXID? OR ETHYLENEGLYCOL?)) | | | | | | | |
| L21 | | QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (| | | | | | | |
| | | POLY(1T)OXY(1T)ETHANEDIYL) | | | | | | | |
| L22 | | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA NE(W)DIYL))) | | | | | | | |
| L33 | | STR | | | | | | | |
| L35 | 120 | SEA FILE=REGISTRY SSS FUL L33 | | | | | | | |
| L89 L90 | 652 | QUE ABB=ON PLU=ON ANTIBODIES+PFT,OLD,NEW,NT/CT SEA FILE=MEDLINE ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR | | | | | | | |
| шуо | 032 | L17))(15A)L13 | | | | | | | |
| L91 | | QUE ABB=ON PLU=ON "TOXINS, BIOLOGICAL"+PFT,OLD,NEW,NT/ | | | | | | | |
| L92 | 18 | CT SEA FILE=MEDLINE ABB=ON PLU=ON L4 | | | | | | | |
| L93 | 20 | QUE ABB=ON PLU=ON "POLYETHYLENE GLYCOLS"+PFT, OLD, NEW, N | | | | | | | |
| T O 4 | 0 | T/CT | | | | | | | |
| L94 L95 | | SEA FILE=MEDLINE ABB=ON PLU=ON L35 SEA FILE=MEDLINE ABB=ON PLU=ON L90 AND ((L92 OR L93) OR L5 | | | | | | | |
| 100 | - | OR (L19 OR L20 OR L21 OR L22)) | | | | | | | |
| L96 | | SEA FILE-MEDLINE ABB-ON PLU-ON L90 AND L89 AND L91 | | | | | | | |
| L97 | U | SEA FILE=MEDLINE ABB=ON PLU=ON L96 AND (L92 OR L93 OR L94 OR (L18 OR L19 OR L20 OR L21 OR L22)) | | | | | | | |
| L98 | | QUE ABB=ON PLU=ON POLYMERS+PFT,OLD,NEW,NT/CT | | | | | | | |
| L99 | | SEA FILE=MEDLINE ABB=ON PLU=ON L96 AND L98 | | | | | | | |
| L100 L101 | | SEA FILE=MEDLINE ABB=ON PLU=ON L95 OR L97 OR L99 SEA FILE=MEDLINE ABB=ON PLU=ON L100 AND (L6 OR L7 OR L8 OR | | | | | | | |
| 1101 | v | L9) | | | | | | | |
| L102 | | SEA FILE=MEDLINE ABB=ON PLU=ON L100 NOT L101 | | | | | | | |
| L103 | / | SEA FILE=MEDLINE ABB=ON PLU=ON L102 AND L10 | | | | | | | |
| | | | | | | | | | |
| => d qı L4 | ue nos 11 1 | 21 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN | | | | | | | |
| L5 | | QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25 | | | | | | | |
| | | 322-68-3DP" | | | | | | | |
| L6 L7 | | QUE ABB=ON PLU=ON DEFREES, S?/AU QUE ABB=ON PLU=ON DE FREES, S?/AU | | | | | | | |
| L8 | | QUE ABB=ON PLU=ON WANG, Z?/AU | | | | | | | |
| L9 | | QUE ABB=ON PLU=ON NEOSE/CS, SO, PA | | | | | | | |
| L10 | | QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY | | | | | | | |
| L11 | | <pre><2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB</pre> | | | | | | | |
| L12 | | QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES)) | | | | | | | |
| L13 | | QUE ABB=ON PLU=ON TOXIN | | | | | | | |
| L14 L15 | | QUE ABB=ON PLU=ON ?GLYCOSYL? QUE ABB=ON PLU=ON AMPLIF? | | | | | | | |
| L16 | | QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? | | | | | | | |
| L17 | | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? | | | | | | | |
| L18 | | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY | | | | | | | |
| ГТО | | LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN | | | | | | | |
| | | ?) | | | | | | | |
| L19 | | QUE ABB=ON PLU=ON PEG | | | | | | | |
| L20 | | QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ? POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID? | | | | | | | |
| | | OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL? | | | | | | | |
| | |)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(| | | | | | | |

| | | 10,000,001 |
|--------------|------------|--|
| | | ETHYLENEOXID? OR ETHYLENEGLYCOL?)) |
| L21 | | QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (|
| - 00 | | POLY(1T)OXY(1T)ETHANEDIYL) |
| L22 | | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA |
| T 0 0 | | NE(W)DIYL))) |
| L23 | | QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPT ID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPE |
| | | PTID? OR HEXAPEPTID? |
| L24 | | QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC |
| 1124 | | HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR |
| | | PENTOS? |
| L33 | | STR |
| L35 | 120 | SEA FILE=REGISTRY SSS FUL L33 |
| L104 | | QUE ABB=ON PLU=ON ANTIBODY+PFT,OLD,NEW,NT/CT |
| L105 | | QUE ABB=ON PLU=ON TOXIN+PFT,OLD,NEW,NT/CT |
| L106 | 575 | SEA FILE=EMBASE ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR |
| | | L17))(15A)L13 |
| L107 | 0 | SEA FILE=EMBASE ABB=ON PLU=ON L35 |
| L108 | 15267 | SEA FILE=EMBASE ABB=ON PLU=ON L4 |
| L109 | | QUE ABB=ON PLU=ON MACROGOL+PFT,OLD,NEW,NT/CT |
| L110 | | SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L107 |
| L111 | 3 | SEA FILE=EMBASE ABB=ON PLU=ON L106 AND ((L108 OR L109) OR |
| T 1 1 0 | 200 | (L18 OR L19 OR L20 OR L21 OR L22) OR L5) |
| L112 L114 | 308 | SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L104 AND L105 QUE ABB=ON PLU=ON CONJUGATE+PFT,OLD,NEW,NT/CT |
| L115 | Q | SEA FILE=EMBASE ABB=ON PLU=ON L112 AND L114 |
| L116 | | SEA FILE=EMBASE ABB=ON PLU=ON (L110 OR L111) OR L115 |
| L117 | | SEA FILE=EMBASE ABB=ON PLU=ON L116 AND (L11 OR L12 OR L13 OR |
| | | L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR |
| | | L23 OR L24) |
| L118 | 11 | SEA FILE=EMBASE ABB=ON PLU=ON (L116 OR L117) |
| L119 | 0 | SEA FILE=EMBASE ABB=ON PLU=ON L118 AND (L6 OR L7 OR L8 OR |
| | | L9) |
| L120 | 11 | SEA FILE=EMBASE ABB=ON PLU=ON L118 NOT L119 |
| L121 | 10 | SEA FILE=EMBASE ABB=ON PLU=ON L120 AND L10 |
| | | |
| | 1.1. 1100 | |
| => a | his 1133 | |
| | (FILE 'BIO | SIS, CABA, BIOTECHNO, DRUGU, VETU' ENTERED AT 10:05:22 ON 30 |
| | APR 2008) | 515, CADA, DIGIECTINO, DIGGO, VETO ENTERED AT 10.05.22 ON 50 |
| L133 | | S L132 AND (L14 OR L24) |
| | | |
| => d | que nos 11 | 33 |
| L4 | 1 | SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN |
| L5 | | QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25 |
| | | 322-68-3DP" |
| L6 | | QUE ABB=ON PLU=ON DEFREES, S?/AU |
| L7 | | QUE ABB=ON PLU=ON DE FREES, S?/AU |
| L8 | | QUE ABB=ON PLU=ON WANG, Z?/AU |
| L9 | | QUE ABB=ON PLU=ON NEOSE/CS, SO, PA |
| L10 | | QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY |
| T 1 1 | | <2004 OR REVIEW/DT |
| L11 | | QUE ABB=ON PLU=ON AB |
| L12 | | QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES |
| L13 | |)) QUE ABB=ON PLU=ON TOXIN |
| L13 | | QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON ?GLYCOSYL? |
| L14 | | QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? |
| | | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
| L17 | | |

| L18 | | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY |
|--------------|----------|---|
| | | LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN?) |
| L19 | | QUE ABB=ON PLU=ON PEG |
| L20 | | QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ? |
| | | POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID? |
| | | OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL? |
| | |)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(|
| | | ETHYLENEOXID? OR ETHYLENEGLYCOL?)) |
| L21 | | QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (|
| | | POLY(1T)OXY(1T)ETHANEDIYL) |
| L22 | | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA |
| | | NE(W)DIYL))) |
| L24 | | QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC |
| | | HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR |
| | | PENTOS? |
| L33 | | STR |
| L35 | | SEA FILE=REGISTRY SSS FUL L33 |
| L122 | | SEA ((L11 OR L12) (5A) (L16 OR L17))(15A) L13 |
| L123 | | SEA L35 |
| L124 | | SEA L122 AND L123 |
| L125 L126 | | SEA L4 SEA L122 AND (L125 OR L5 OR (L18 OR L19 OR L20 OR L21 OR L22)) |
| L120 | 10 | SEA LIZZ AND (LIZS OR LS OR (LIO OR LIS OR LZO OR LZI OR LZZ)) |
| L127 | 393 | SEA L122 AND (L11/IT, TI, CC, CT, ST, STP OR L12/IT, TI, CC, CT, ST, STP) |
| | | AND L13/IT, TI, CC, CT, ST, STP AND (L16/IT, TI, CC, CT, ST, STP OR |
| | | L17/IT, TI, CC, CT, ST, STP) |
| L128 | | SEA L127 AND L16/IT, TI, CC, CT, ST, STP |
| L129 | | SEA L124 OR L126 OR L128 |
| L130 | | SEA L129 AND (L6 OR L7 OR L8 OR L9) |
| L131 | | SEA L129 NOT L130 |
| L132 L133 | | SEA L131 AND L10 SEA L132 AND (L14 OR L24) |
| штоо | • | |
| => d | que 1136 | |
| L11 | 940 1100 | QUE ABB=ON PLU=ON AB |
| L12 | | QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES |
| | |)) |
| L13 | | QUE ABB=ON PLU=ON TOXIN |
| L16 | | QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? |
| L17 | | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
| | | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? |
| L18 | | QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY |
| | | LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN |
| | | ?) |
| L19 | | QUE ABB=ON PLU=ON PEG |
| L20 | | QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ? |
| | | POLYETHYLENEOXID? OR MACROGOL OR (POLY(W) (ETHYLENEOXID? |
| | | OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL? |
| | |)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(ETHYLENEOXID? OR ETHYLENEGLYCOL?)) |
| L21 | | QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (|
| $11 \le 1$ | | POLY(1T)OXY(1T)ETHANEDIYL) |
| L22 | | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA |
| | | NE(W)DIYL))) |
| L29 | | QUE ABB=ON PLU=ON A61K0039-395/IPC |
| L30 | | QUE ABB=ON PLU=ON A61K0039-44/IPC |
| L31 | | QUE ABB=ON PLU=ON C07K0016-46/IPC |
| | | |

10/565 331

| | 10/565,331 |
|---------------|--|
| L32 | QUE ABB=ON PLU=ON C07K0017-08/IPC |
| L134 13 | S SEA FILE=JAPIO ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR |
| 7.105 | L17))(15A)L13 |
| L135 9 | SEA FILE=JAPIO ABB=ON PLU=ON L134 AND (L29 OR L30 OR L31 OR L32) |
| L136 1 | SEA FILE=JAPIO ABB=ON PLU=ON L135 AND (L18 OR L19 OR L20 OR |
| | L21 OR L22) |
| | |
| => d his 1146 | |
| => 0 HIS 1146 | |
| (FILE 'PAS | SCAL, CEABA-VTB, BIOENG, BIOTECHDS, LIFESCI, DRUGB, VETB, |
| | CONFSCI, DISSABS' ENTERED AT 10:12:45 ON 30 APR 2008) |
| L146 15 | 5 S L145 AND L10 |
| FILE 'STNG | GUIDE' ENTERED AT 10:22:46 ON 30 APR 2008 |
| IIII SINC | JOIDE BRIENDD AT 10.22.40 ON 30 ATT 2000 |
| FILE 'REGI | STRY' ENTERED AT 10:23:27 ON 30 APR 2008 |
| | NATED TO THE 10 00 00 00 00 00 000 |
| FILE 'STNG | GUIDE' ENTERED AT 10:23:29 ON 30 APR 2008 |
| => d que 1146 | |
| L6 | QUE ABB=ON PLU=ON DEFREES, S?/AU |
| L7 | QUE ABB=ON PLU=ON DE FREES, S?/AU |
| T8 | QUE ABB=ON PLU=ON WANG, Z?/AU |
| L9 | QUE ABB=ON PLU=ON NEOSE/CS, SO, PA |
| L10 | QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY |
| L11 | <2004 OR REVIEW/DT QUE ABB=ON PLU=ON AB |
| L12 | QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES |
| |)) |
| L13 | QUE ABB=ON PLU=ON TOXIN |
| L14 | QUE ABB=ON PLU=ON ?GLYCOSYL? |
| L16 | QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? |
| L17 | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
| L18 | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY |
| 110 | LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN |
| | ?) |
| L19 | QUE ABB=ON PLU=ON PEG |
| L20 | QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ? |
| | POLYETHYLENEOXID? OR MACROGOL OR (POLY(W) (ETHYLENEOXID? |
| | OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL? |
| |)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(ETHYLENEOXID? OR ETHYLENEGLYCOL?)) |
| L21 | QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (|
| 1121 | POLY(1T)OXY(1T)ETHANEDIYL) |
| L22 | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA |
| | NE(W)DIYL))) |
| L24 | QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC |
| | HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR |
| L137 1710 | PENTOS? SEA ((L11 OR L12) (5A) (L16 OR L17))(15A) L13 |
| | S SEA L137 AND (L18 OR L19 OR L20 OR L21 OR L22) |
| | SEA L137 AND (DISULF? OR DISULPH? OR ((SULFUR OR SULPHUR)(2W)(S |
| | ULFUR OR SULPHUR)) OR (S(1W) S)) |
| L140 81 | . SEA L137 AND (L14 OR L24) |
| | SEA L138 AND L139 |
| | SEA L138 AND L140 |
| L143 28 | 8 SEA L138 OR L141 OR L142 |

ANSWERS '83-84' FROM FILE SCISEARCH

=> file stnguide FILE 'STNGUIDE' ENTERED AT 10:26:22 ON 30 APR 2008 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
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=> d ibib ed abs hitind hitstr YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 1 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2003:971272 HCAPLUS Full-text

DOCUMENT NUMBER: 140:26914

TITLE: Anti-CCR5 antibody and conjugates

for treating human immunodeficiency virus 1 infection INVENTOR(S): Olson, William C.; Maddon, Paul J.; Tsurushita, Naoya;

Hinton, Paul R.; Vasquez, Maximiliano

PATENT ASSIGNEE(S): Progenics Pharmaceuticals, Inc., USA; Pdl Biopharma,

Inc.

SOURCE: U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S.

Provisional Ser. No. 358,886.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
|------------------------|------|----------|-----------------|------|----------|---|
| | | | | | | |
| US 20030228306 | A1 | 20031211 | US 2003-371483 | | 20030221 | < |
| US 7122185 | В2 | 20061017 | | | | |
| US 20070031408 | A1 | 20070208 | US 2006-581945 | | 20061016 | < |
| PRIORITY APPLN. INFO.: | | | US 2002-358886P | Р | 20020222 | < |
| | | | US 2003-371483 | A1 | 20030221 | < |

ED Entered STN: 12 Dec 2003

AΒ The invention is directed an anti-CCR5 antibody which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising an expression product of either a plasmid designated pVg1:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg1:HuPRO140 (mutB+D+I)-VH (ATCC Deposit Designation PTA-4099) or a fragment thereof which binds to CCR5 on the surface of a human cell. This invention also provides a method of inhibiting infection of a CD4+ cell which comprises contacting the CD4+ cell with said antibody which binds to CCR5 on the surface of a human cell, under conditions effective to treat the HIV-1-infected subject. This invention also provides a method of treating a subject afflicted with HIV-1 or preventing a subject from contracting an HIV-1 infection which comprises administering to the subject an effective HIV-1 infection-preventing dosage amount of an anti-CCR5 antibody. It was shown that anti-CCR5 antibodies inhibit gp120 binding during HIV-1 entry. High effectiveness of anti-CCR5 antibodies in controlling established HIV-1 infection was demonstrated in the mouse model of HIV-1 infection.

IC ICM A61K039-395

ICS C12P021-04; C07K016-28

INCL 424143100; X53-038.822; X43-5 7.021

CC 15-3 (Immunochemistry)

Section cross-reference(s): 1, 3, 63

ST CCR5 antibody light heavy chain conjugate HIV1 antiviral

IT Chemokine receptors

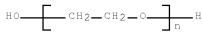
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

```
(CCR5; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
ΙT
     Animal cell line
        (CHO; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
ΙT
     Animal cell line
        (COS; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (IgG1; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
     Antiviral agents
ΤТ
     Biomarkers
     Genetic vectors
     Human
     Human immunodeficiency virus 1
     Molecular cloning
        (anti-CCR5 antibody and conjugates for treating
        human immunodeficiency virus 1 infection)
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (anti-CCR5 antibody and conjugates for treating
        human immunodeficiency virus 1 infection)
     Nucleic acids
ΙT
     Polymers, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (anti-CCR5 antibody and conjugates for treating
        human immunodeficiency virus 1 infection)
     Polyoxyalkylenes, biological studies
ΤТ
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (antibody conjugates, PEG; anti-CCR5
        antibody and conjugates for treating human
        immunodeficiency virus 1 infection)
ΙT
     Cytotoxic agents
        (antibody conjugates; anti-CCR5 antibody
        and conjugates for treating human immunodeficiency virus 1
        infection)
ΙT
     Radionuclides, biological studies
       Toxins
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (antibody conjugates; anti-CCR5 antibody
        and conjugates for treating human immunodeficiency virus 1
        infection)
ΙT
     Polyoxyalkylenes, biological studies
     Polysaccharides, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (antibody conjugates; anti-CCR5 antibody
        and conjugates for treating human immunodeficiency virus 1
        infection)
ΙT
     Blood serum
        (antibody half life or clearance rate; anti-CCR5
        antibody and conjugates for treating human
        immunodeficiency virus 1 infection)
```

```
ΙT
     Polysaccharides, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (branched and unbranched, antibody conjugates;
        anti-CCR5 antibody and conjugates for treating
        human immunodeficiency virus 1 infection)
ΙT
     Drug delivery systems
        (carriers; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
ΙT
        (cells; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
     Chemokines
ΙT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (combination with; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
ΙT
     CD4-positive T cell
        (expressing CCR5, inhibiting HIV-1 infection in; anti-CCR5
        antibody and conjugates for treating human
        immunodeficiency virus 1 infection)
     cDNA sequences
ΙT
        (for anti-CCR5 antibodies; anti-CCR5 antibody and
        conjugates for treating human immunodeficiency virus 1
        infection)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (fragments; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (fusion products; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
     Envelope proteins
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (gp120env, inhibiting gp120-CD4 binding; anti-CCR5
        antibody and conjugates for treating human
        immunodeficiency virus 1 infection)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (heavy chain; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
ΤТ
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (humanized; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
ΙT
     Drug delivery systems
        (immunoconjugates; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
     Drug delivery systems
ΙT
        (immunotoxins; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
```

```
ΙT
    CD4 (antigen)
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (inhibiting gp120-CD4 binding; anti-CCR5 antibody
        and conjugates for treating human immunodeficiency virus 1
        infection)
ΙT
     Drug delivery systems
        (injections, i.m.; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
     Drug delivery systems
ΙT
        (injections, i.v.; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
ΙT
     Drug delivery systems
        (injections, s.c.; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (light chain; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
    Animal cell
ΤТ
        (mammalian; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
TΤ
     Epitopes
        (mapping; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
     Fluorescent substances
ΤТ
        (marker; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (monoclonal; anti-CCR5 antibody and conjugates for
        treating human immunodeficiency virus 1 infection)
     Protein sequences
ΙT
        (of anti-CCR5 antibodies; anti-CCR5 antibody and
        conjugates for treating human immunodeficiency virus 1
        infection)
    Plasmid vectors
ΙT
        (pVg1:HuPRO140 (mutB+D+I)-VH; anti-CCR5 antibody and
        conjugates for treating human immunodeficiency virus 1
        infection)
TΤ
     Plasmid vectors
        (pVg1:HuPRO140 HG2-VH; anti-CCR5 antibody and
        conjugates for treating human immunodeficiency virus 1
        infection)
TT
     Plasmid vectors
        (pVκ:HuPRO140-Vκ; anti-CCR5 antibody and
        conjugates for treating human immunodeficiency virus 1
        infection)
     Drug delivery systems
ΤT
        (polymer-bound; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
     25322-68-3D, Polyethylene glycol,
ΙT
     antibody conjugates
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (PEG; anti-CCR5 antibody and conjugates
        for treating human immunodeficiency virus 1 infection)
```

633361-50-9DP, conjugates 633361-53-2DP, conjugates 633361-56-5DP, conjugates RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection) 9002-89-5D, Poly(vinyl alcohol), derivs., antibody ΤТ conjugates 9005-49-6D, Heparin, polymers, antibody 25087-26-7D, Polymethacrylic acid, antibody conjugates 70226-44-7D, Heparan, polymers, antibody conjugates conjugates RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection) ΙT 633361-49-6P 633361-51-0P 633361-52-1P 633361-54-3P 633361-55-4P 633361-57-6P RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (nucleotide sequence; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection) 200803-28-7 200803-29-8 228120-60-3 228120-61-4 ΤT RL: PRP (Properties) (unclaimed sequence; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection) ΙT 25322-68-3D, Polyethylene glycol, antibody conjugates RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (PEG; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection) 25322-68-3 HCAPLUS RN CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)



=> d ibib ed abs hitind hitstr 2-35
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE,
BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 2 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1989:113004 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 110:113004

ORIGINAL REFERENCE NO.: 110:18635a,18638a

TITLE: Tolerogenic conjugates of xenogeneic

monoclonal antibodies with

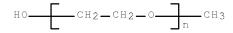
monomethoxypolyethylene glycol. I.

Induction of long-lasting tolerance to xenogeneic monoclonal antibodies AUTHOR(S): Maiti, Pradip K.; Lang, Glen M.; Sehon, A. H. CORPORATE SOURCE: Dep. Immunol., Univ. Manitoba, Winnipeg, MB, R3E 0W3, Can. SOURCE: International Journal of Cancer (1988), (Suppl. 3), 17-22 CODEN: IJCNAW; ISSN: 0020-7136 DOCUMENT TYPE: Journal LANGUAGE: English Entered STN: 03 Apr 1989 ED The therapeutic effectiveness of xenogeneic monoclonal antibodies (MAbs) (xIq) AB or their conjugates with toxins (xIg-Tx) is undermined because of their inherent immunogenicity. This complication may be overcome by converting the antigenic xIg to tolerogenic derivs. by coupling an appropriate number of monomethoxypolyethylene glycol (mPEG) chains (mol. weight 6400) onto an xIg mol. In this study, the test system consisted of inbred mice and human (myeloma) monoclonal Igs (HIgG) which were used in lieu of xIg; the immunizing antigen was heat-aggregated HIgG. The results of a variety of exptl. protocols demonstrate that a long-lasting suppression (>95%) of anti-HIgG antibodies for periods in excess of 300 days was achieved by administration of tolerogenic HIgG(mPEG)n conjugates in spite of multiple injections of the immunizing antigen. Thus, pre-treatment of hosts with mPEG conjugates of xIq or of xIq-Tx is envisaged as a potential method for overcoming the antigenicity of these antitumor agents. 15-10 (Immunochemistry) CC Section cross-reference(s): 1 xenogeneic monoclonal antibody tolerance monomethoxyPEG ST antitumor ΙT Immune tolerance (to xenogeneic monoclonal antibodies, monomethoxypolyethylene glycol conjugation induction of) ΙT Neoplasm inhibitors (xenogeneic monoclonal antibodies or immunotoxins as, antigenicity of, monomethoxypolyethylene glycol induction of tolerance to) ΙT Toxins RL: BIOL (Biological study) (immuno-, xenogeneic monoclonal antibody complexes, monomethoxypolyethylene glycol conjugates, long-lasting tolerance induction by) Antibodies ΙT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (xeno-, monoclonal, tolerance to, monomethoxypolyethylene glycol conjugates with xenogeneic monoclonal antibodies for induction of) ΤТ Immunoglobulins RL: BIOL (Biological study) (xeno-, monoclonal, conjugates, with monomethoxypolyethylene glycol, for xenogeneic monoclonal antibodies immune tolerance induction) 9004-74-4 ΙT RL: BIOL (Biological study) (immune tolerance to xenogeneic monoclonal antibodies induction by) 9004-74-4 ΙT RL: BIOL (Biological study) (immune tolerance to xenogeneic monoclonal antibodies

induction by)

RN 9004-74-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 3 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:638618 HCAPLUS Full-text

DOCUMENT NUMBER: 143:131809

Production of human monoclonal antibodies TITLE: Tamarkin, Lawrence; Paciotti, Giulio F. INVENTOR(S):

Cytimmune Sciences, Inc., USA PATENT ASSIGNEE(S):

PCT Int. Appl., 61 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA: | PATENT NO. | | | | KINI | IND DATE | | | | APPLICATION NO. | | | | | DATE | | | |
|--------|------------|--------|--------|-----|------|----------|------|------|-----|-----------------|------|-------|------|-----|------|-------|-------|---|
| _ | 2005 | | | | | | | - | , | | | | | | 2 | 0041 | 202 < | < |
| WO | 2005 | 0651 | 21 | | А3 | | 2005 | 1229 | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | ΑM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | ВG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NΙ, | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | ТJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | |
| | | AZ, | BY, | KG, | KΖ, | MD, | RU, | ΤJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | |
| | | | | | | | GR, | | | | | | | | | | | |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | |
| | | MR, | NE, | SN, | TD, | TG | · | , | • | · | • | · | , | · | | , | · | |
| AU | 2004 | 3116 | 30 | · | A1 | | 2005 | 0721 | | AU 2 | 004- | 3116. | 30 | | 2 | 0041 | 202 < | < |
| CA | 2548 | 179 | | | A1 | | 2005 | 0721 | | CA 2 | 004- | 2548 | 179 | | 2 | 0041 | 202 < | < |
| US | 2005 | 0175 | 583 | | A1 | | 2005 | 0811 | | US 2 | 004- | 4623 | | | 2 | 0041 | 202 < | < |
| | 1694 | | | | | | | | | | | | | | | | 202 < | |
| | R: | | | | | | | | | | | | | | | | PT, | |
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| CN | 1925 | • | • | • | • | • | • | • | • | • | • | • | • | • | | 0041 | 202 < | < |
| | 2008 | | | | | | | | | | | | | | | | | |
| | Z APP | | | | _ | | 2000 | 0211 | | | | | | | | | 202 < | |
| O1(11. | | T114 • | 1141 0 | • • | | | | | | | | US40 | | | | | - | ` |
| | | ~ | _ | | | ^ E | | | | 2 | 004 | 0550 | , 55 | | v | 0041. | | |

Entered STN: 22 Jul 2005 ΕD

The authors disclose compns. and methods for making human monoclonal AΒ antibodies. The methods comprise tethered colloidal gold microparticle scaffolds that replicate the immune system components, particularly an antigen-presenting cell (APC) with costimulatory (B7) and adhesive (ICAM) components of the immune synapse. Addnl., the present invention may further comprise synthetic T-cells.

IC ICM G01N

15-1 (Immunochemistry) CC Section cross-reference(s): 2, 14

ST human monoclonal antibody artificial accessory cell; artificial T lymphocyte colloidal gold human antibody ΙT Hemopoietins RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (FLT3 ligand, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) Antibodies and Immunoglobulins TΤ RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation) (IgG, monoclonal; production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers) ΙT Antibodies and Immunoglobulins (IgM, hyperimmunoglobulinemia, X-linked; colloidal gold microparticle scaffolds mimicking antigen-presenting cells for use in immunotherapy of) ΙT Melanoma-associated antigens RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (MAGE (melanoma-associated antigen-encoding gene), colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) ΙT Antigens RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (MART-1, colloidal gold conjugates; of artificial antiqen-presenting cells stimulating human antibody response) Mucins ΙT RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (MUC1, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) ΙT Blood-group substances RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (Rh, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) Antibodies and Immunoglobulins ΙT RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (X-linked infantile hypogammaglobulinemia; colloidal gold microparticle scaffolds mimicking antigen-presenting cells for use in immunotherapy of) ΙT Immunostimulants (adjuvants; of artificial antigen-presenting cells for generation of human antibody response) ΙT Antigens RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (autoantigens, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) ΙT Lipopolysaccharides RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (bacterial; of artificial antigen-presenting cells for generation of human antibody response) ΙT Medical goods (biodegradable; of artificial antigen-presenting cells for generation of human antibody response)

IT

Angiogenesis inhibitors

```
Immunomodulators
        (colloidal gold conjugates; of artificial antigen-presenting
        cells stimulating human antibody response)
ΤТ
    Angiogenic factors
     DNA
     Heat-shock proteins
     Histocompatibility antigens
     Interleukin 1
     Interleukin 10
     Interleukin 11
     Interleukin 12
     Interleukin 13
     Interleukin 2
     Interleukin 3
     Interleukin 4
     Interleukin 5
     Interleukin 6
     Interleukin 7
     Interleukin 8
     Lipid A
       Lymphotoxin
    Macrophage migration inhibitory factor
    Nucleotides, biological studies
     Polynucleotides
     Prostate-specific antigen
     RNA
     Tumor antigens
     Tumor necrosis factors
     mRNA
     p53 (protein)
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (colloidal gold conjugates; of artificial antigen-presenting
        cells stimulating human antibody response)
ΤТ
     Drug delivery systems
        (emulsions; of artificial antigen-presenting cells for generation of
        human antibody response)
ΙT
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (endotoxins, colloidal gold conjugates; of artificial
        antigen-presenting cells stimulating human antibody response)
ΙT
     Lymph node
        (germinal center; production of human monoclonal antibodies using
        colloidal gold microparticle scaffolds mimicking antigen-presenting
        cells, T-cells, or germinal centers)
ΙT
     T cell (lymphocyte)
        (helper cell; production of human monoclonal antibodies using
        colloidal gold microparticle scaffolds mimicking antigen-presenting
        cells, T-cells, or germinal centers)
ΙT
     Antibodies and Immunoglobulins
        (hypogammaglobulinemia, transient hypogammaglobulinemia of infancy;
        colloidal gold microparticle scaffolds mimicking antigen-presenting
        cells for use in immunotherapy of)
ΙT
     Avidins
       Polyoxyalkylenes, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (in generation of artificial antigen-presenting cells)
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ΤТ

Drug delivery systems

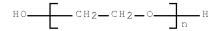
10/565,331 (liposomes; of artificial antigen-presenting cells for generation of human antibody response) ΙT Biodegradable materials (medical; of artificial antigen-presenting cells for generation of human antibody response) ΙT Drug delivery systems (microspheres; of artificial antigen-presenting cells for generation of human antibody response) Antibodies and Immunoglobulins ΙT RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation) (monoclonal; production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers) Inflammation ΤT Kidney, disease (nephritis, antibody-mediated; colloidal gold microparticle scaffolds mimicking antigen-presenting cells for use in immunotherapy of) Mycobacterium butyricum ΙT Mycobacterium tuberculosis (of artificial antigen-presenting cells for generation of human antibody response) ΙT Toxins RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (pertussis; of artificial antigen-presenting cells for generation of human antibody response) Antigen-presenting cell ΙT Human (production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers) ΙT Enterotoxins RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (staphylococcal B, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) ΙT Toxins RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (tetanus; of artificial antigen-presenting cells for generation of human antibody response) ΙT Interferons RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (type I, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) ΤТ Transforming growth factors RL: BUU (Biological use, unclassified); BIOL (Biological study); USES $(\alpha-, colloidal gold conjugates; of artificial$ antiqen-presenting cells stimulating human antibody response) Transforming growth factors ΤТ RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (β-, colloidal gold conjugates; of artificialantigen-presenting cells stimulating human antibody response)

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

Interferons

ΙT

(Uses) (γ, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response) 7429-90-5D, Aluminum, conjugates with immunostimulatory mols. 7439-89-6D, Iron, conjugates with immunostimulatory mols. 7440-06-4D, Platinum, conjugates with immunostimulatory mols. 7440-22-4D, Silver, conjugates with immunostimulatory mols. 7440-57-5D, Gold, conjugates with immunostimulatory mols. RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (colloidal microparticles; in generation of human antibody response) 58-85-5, Biotin 25104-18-1, Poly-L-lysine 25322-68-3, ΙT Polyethylene glycol 38000-06-5, Poly-L-lysine RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (in generation of artificial antigen-presenting cells) 9003-53-6, Polystyrene ΙT RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (of artificial antigen-presenting cells for generation of human antibody response) 9001-84-7D, Phospholipase A2, conjugates with colloidal gold ΙT microparticles 9002-10-2D, Tyrosinase, conjugates with colloidal gold microparticles 9002-71-5D, TSH, conjugates with colloidal gold microparticles 62031-54-3D, Fibroblast growth factor, conjugates with colloidal gold microparticles 81627-83-0D, M-CSF, conjugates with colloidal gold microparticles 83869-56-1D, GM-CSF, conjugates with colloidal gold microparticles 127464-60-2D, VEGF, conjugates with colloidal gold microparticles 143011-72-7D, G-CSF, conjugates with colloidal gold microparticles 572921-97-2D, Angiogenin, conjugates with colloidal gold microparticles RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (of artificial antigen-presenting cells stimulating human antibody response) 25322-68-3, Polyethylene glycol ΙT RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (in generation of artificial antigen-presenting cells) 25322-68-3 HCAPLUS RN



CN

L147 ANSWER 4 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:588275 HCAPLUS Full-text DOCUMENT NUMBER: 143:114046

DOCUMENT NUMBER: 143:114046

TITLE: Human interleukin 18-binding proteins and

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)

antibodies and conjugates for

treating IL-18-related inflammatory diseases

INVENTOR(S): Ghayur, Tariq; Labkovsky, Boris; Voss, Jeffrey W.;

Green, Larry; Babcook, John; Jia, Xiao-chi; Wieler,

James; Kang, Jaspal Singh; Hedberg, Brad

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 86 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-------------------|------------|
| | | | | |
| US 20050147610 | A1 | 20050707 | US 2004-988360 | 20041112 < |
| PRIORITY APPLN. INFO.: | | | US 2003-519474P P | 20031112 < |

OTHER SOURCE(S): MARPAT 143:114046

ED Entered STN: 08 Jul 2005

- The present invention encompasses IL-18 binding proteins, particularly antibodies that bind human interleukin-18 (hIL-18). Specifically, the invention relates to antibodies that are entirely human antibodies. Preferred antibodies have high affinity for hIL-18 and/or that neutralize hIL-18 activity in vitro and in vivo. An antibody of the invention can be a full-length antibody or an antigen-binding portion thereof. Method of making and method of using the antibodies of the invention are also provided. The antibodies, or antibody portions, of the invention are useful for detecting hIL-18 and for inhibiting hIL-18 activity, e.g., in a human subject suffering from a disorder in which hIL-18 activity is detrimental.
- IC ICM C07K016-24

ICS C07H021-04; C12P021-04; A61K039-395; C12N005-06

- INCL 424145100; 530388230; 435069100; 435320100; 435335000; 536023530; 424486000; 424488000
- CC 15-3 (Immunochemistry)

Section cross-reference(s): 1, 3, 8, 63

- ST human interleukin 18 binding protein antibody conjugate inflammatory disease
- IT Chlamydia

Salmonella

Yersinia

(-associated arthropathy; human interleukin 18-binding proteins and <u>antibodies</u> and <u>conjugates</u> for treating IL-18-related inflammatory diseases)

IT Hepatitis

(B; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

IT Hepatitis

(C; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

IT Animal cell line

(CHO; human interleukin 18-binding proteins and <u>antibodies</u> and <u>conjugates</u> for treating IL-18-related inflammatory diseases)

IT Animal cell line

(COS; human interleukin 18-<u>binding</u> proteins and <u>antibodies</u> and <u>conjugates</u> for treating IL-18-related inflammatory diseases)

IT Inflammation

(Crohn's disease; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

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ΙT
     Intestine, disease
        (Crohn's; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Kidney, disease
ΙT
        (Goodpasture's syndrome; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Purpura (disease)
        (Henoch-Schoenlein's; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
    Nervous system, disease
ΙT
        (Huntington's chorea; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
    Proteins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (IL-18-binding; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (IgA; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (IgD; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Antibodies and Immunoglobulins
TT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (IgE; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (IgG1; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (IgG2; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Antibodies and Immunoglobulins
ΤT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
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THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

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(Uses)
        (IgG3; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (IgG4; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (IgG; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (IgM; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Blood vessel, disease
ΙT
        (Kawasaki; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΤТ
    Arthritis
        (Reiter's syndrome; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
    Animal cell line
ΤТ
        (SF9; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Granulomatous disease
ΙT
        (Wegener's granulomatosis; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Antibodies and Immunoglobulins
ΙT
        (acquired hypogammaglobulinemia; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Immune disease
     Liver, disease
        (acute and chronic; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Pain
     Rheumatic fever
        (acute; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Respiratory distress syndrome
        (adult; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
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ΙT
    Cirrhosis
        (alc.; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Ethers, biological studies
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (alkyl vinyl, polymers, co-; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Polysaccharides, biological studies
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (aminodeoxy, glyco-; antibody conjugates; human
        interleukin 18-binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     Inflammation
     Spinal column, disease
        (ankylosing spondylitis; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
    Alkylating agents, biological
ΤT
    Angiogenesis inhibitors
    Antibiotics
     Cytotoxic agents
     Drugs
     Fluorescent substances
     Labels
     Luminescent substances
     Magnetic materials
        (antibody conjugates; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     Albumins, biological studies
     Anthracyclines
     Collagens, biological studies
     Enzymes, biological studies
     Fibrins
     Gelatins, biological studies
     Growth factors, animal
       Oligosaccharides, biological studies
     Polysaccharides, biological studies
     Radionuclides, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (antibody conjugates; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     Cytotoxic agents
        (antimetabolites, antibody conjugates; human
        interleukin 18-binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     Alopecia
        (areata; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Artery, disease
ΙT
     Inflammation
        (arteritis, Takayasu's disease; human interleukin 18-binding
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10/565,331 proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Artery, disease Inflammation (arteritis, giant cell; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Disease, animal TT (arthropathy, seroneg. or psoriatic; human interleukin 18binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Allerav ΙT (atopy; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Hypothyroidism ΤТ (atrophic autoimmune; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Anemia (disease) ΤТ Autoimmune disease (autoimmune hemolytic anemia; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Autoimmune disease ΤT (autoimmune thrombocytopenia; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Autoimmune disease ΙT Inflammation Thyroid gland, disease (autoimmune thyroiditis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Hepatitis ΙT (autoimmune, cryptogenic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Hypoglycemia ΙT Thyroid gland, disease (autoimmune; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Sperm (autoimmunity; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Luminescent substances (bioluminescent, antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Bronchi, disease ΤT Inflammation (bronchiolitis, obliterans; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Skin, disease

(bullous, autoimmune; human interleukin 18-binding proteins

and antibodies and conjugates for treating

IL-18-related inflammatory diseases)

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Mycosis
ΙT
        (candidiasis, chronic mucocutaneous; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
     Drug delivery systems
ΙT
        (carriers; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Biology
        (cell, host; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
    Aves
     Insecta
        (cell; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Protista
        (cells; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (chimeric; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Biliary tract, disease
ΙT
        (cholestasis; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Infection
        (chronic active hepatitis; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Fatique, biological
ΙT
        (chronic fatigue syndrome; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
    Pain
        (chronic; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Polymers, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (co-; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Enzymes, biological studies
ΤТ
       Oligosaccharides, biological studies
     Polysaccharides, biological studies
       Toxins
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (conjugates, antibody; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
     Antibodies and Immunoglobulins
ΙT
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RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (conjugates; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
    Molecules
        (costimulatory; blockers; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Disease, animal
ΙT
        (deficiency, type I sporadic polyglandular; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
    Mental and behavioral disorders
ΤT
        (depression; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Peptides, biological studies
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (depsipertides, poly-; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Heart, disease
ΤT
        (dilated cardiomyopathy; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Lupus erythematosus
ΙT
        (discoid; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Platelet (blood)
        (disease, autoimmune thrombocytopenia; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
     Joint, anatomical
ΙT
        (disease, seroneg. or psoriatic; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
    Platelet (blood)
ΙT
        (disease, thrombocytopenia, idiopathic; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     Blood coagulation disorders
        (disseminated intravascular coagulation; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     Lung, disease
        (eosinophilia, chronic; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Heart, disease
ΙT
     Ovary, disease
        (failure; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Fertility disorders
ΙT
        (female; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
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inflammatory diseases)
ΙT
    Lung, disease
        (fibrosis, cryptogenic; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Lung, disease
     Radiation
        (fibrosis; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Interleukin receptors
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (for IL-18; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (fragments; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Drug delivery systems
        (freeze-dried; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Inflammation
ΙT
     Kidney, disease
        (glomerulonephritis; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Oligosaccharides, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (glycamino; antibody conjugates; human interleukin
        18-binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
     Transplant and Transplantation
ΙT
        (graft-vs.-host reaction; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (heavy chain; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     T cell (lymphocyte)
        (helper cell/inducer, TH1, modulation; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     T cell (lymphocyte)
        (helper cell/inducer, TH2, modulation; human interleukin 18-
        binding proteins and antibodies and
        conjugates for treating IL-18-related inflammatory diseases)
ΙT
     Anemia (disease)
        (hemolytic; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
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inflammatory diseases) ΙT Injury (hepatic, alc.-induced; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Infection (hepatitis B; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Infection ΙT (hepatitis C; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) AIDS (disease) ΙT Addison's disease Allergy Alopecia Alzheimer's disease Animal cell Antitumor agents Asthma Atherosclerosis Cachexia Connective tissue, disease Crystals Culture media DNA sequences Dermatitis Dermatomyositis Dissociation constant Drug allergy Drug delivery systems Escherichia coli Eukaryota Fungi Genetic vectors Gout Graves' disease Human Hyperthyroidism Hypoparathyroidism Infection Inflammation Lung, disease Lyme disease Mammalia Mental and behavioral disorders Molecular cloning Multiple sclerosis Neoplasm Osteoarthritis Parkinson's disease Plant cell Prokaryota Protein sequences Psoriasis Rheumatoid arthritis Saccharomyces cerevisiae Sarcoidosis

Schizophrenia

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Sepsis
     Sjogren syndrome
     Streptococcus group B
     Transplant rejection
     Vitiligo
        (human interleukin 18-binding proteins and antibodies
        and conjugates for treating IL-18-related inflammatory
        diseases)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (human interleukin 18-binding proteins and antibodies
        and conjugates for treating IL-18-related inflammatory
        diseases)
     Interleukin 18
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (human interleukin 18-binding proteins and antibodies
        and conjugates for treating IL-18-related inflammatory
        diseases)
     Corticosteroids, biological studies
     Interleukin 12
     Nucleic acids
       Peptides, biological studies
     Polyesters, biological studies
     Polymers, biological studies
       Polyoxyalkylenes, biological studies
     Tumor necrosis factors
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (human interleukin 18-binding proteins and antibodies
        and conjugates for treating IL-18-related inflammatory
        diseases)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (humanized; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Blood, disease
        (idiopathic thrombocytopenia; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Leukocytopenia
        (idiopathic; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Drug delivery systems
        (immunoconjugates; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Drug delivery systems
        (immunotoxins; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Heart, disease
ΙT
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(infarction; human interleukin 18-binding proteins and

antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Parasite (infection; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Intestine, disease (inflammatory; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Apoptosis ΙT Mitosis (inhibitor-antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Liver, disease (injury, alc.-induced; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Autoimmune disease ΤТ (insulin-dependent diabetes mellitus; human interleukin 18binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Diabetes mellitus ΙT (insulin-dependent; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Inflammation ΙT Lung, disease (interstitial pneumonitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Lung, disease (interstitial, post-inflammatory; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Rheumatoid arthritis ΤТ (juvenile; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Antibodies and Immunoglobulins ΙT RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (light chain; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΤТ Lung, disease (lymphocytic infiltrative; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Fertility disorders (male; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Animal cell ΙT (mammalian; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Kidney, disease ΙT

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(microscopic vasculitis; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
    Lymphocyte
        (migration, recruitment; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     B cell (lymphocyte)
ΤТ
     Eosinophil
     Macrophage
    Monocyte
     Neutrophil
        (modulation; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Cell adhesion molecules
    Chemokines
     Cytokines
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (modulation; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (monoclonal, neutralizing; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (monoclonal; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Inflammation
     Spinal cord, disease
        (myelitis, acute transverse; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Edema
     Hypothyroidism
        (myxedema; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
    Lymphocyte
        (natural killer cell, modulation; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Kidney, disease
        (nephrotic syndrome; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (neutralizing; human interleukin 18-binding proteins and
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antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Agranulocytosis (neutropenia, autoimmune; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Hepatitis (nonalc. steatohepatitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Anti-inflammatory agents ΙT (nonsteroidal; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Eye, disease ΤT (ophthalmia, sympathetic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Esters, biological studies ΙT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ortho acid, poly-; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Genetic vectors ΤT (pBJ; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Genetic vectors ΙT (pBV; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Genetic vectors (pEFBOS; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Genetic vectors (pJV; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Genetic vectors ΙT (pTT3; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) TΤ Genetic vectors (pTT; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Genetic vectors (pcDNA; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Skin, disease TT (pemphigoid; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Skin, disease (pemphigus foliaceus; human interleukin 18-binding proteins

and antibodies and conjugates for treating

IL-18-related inflammatory diseases)

ΙT Skin, disease (pemphigus vulgaris; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Artery, disease ΙT Inflammation (periarteritis nodosa; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Anemia (disease) ΙT (pernicious anemia, acquired or juvenile; human interleukin 18binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Polyphosphazenes ΙT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (poly(organophosphazenes); human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Anhydrides ΙT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (poly-; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Autoimmune disease ΙT Endocrine system, disease (polyglandular syndrome, deficiency; human interleukin 18binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Alcohols, biological studies ΤT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (polyhydric, pluronic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Drug delivery systems (polymer-bound; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Biliary tract, disease ΙT (primary biliary cirrhosis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Hepatitis (primary sclerosing; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) TT Arthritis (psoriatic arthritis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Fibrosis ΤТ (pulmonary, cryptogenic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Fibrosis Hypertension (pulmonary; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related

inflammatory diseases) ΙT Fibrosis (radiation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Arthritis (reactive; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Connective tissue, disease ΙT (scleroderma; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Biliary tract, disease ΙT Inflammation (sclerosing cholangitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Arthritis ΙT Shock (circulatory collapse) (septic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Inflammation ΙT Spinal column, disease (spondylitis, rheumatoid; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Spinal column, disease ΙT (spondyloarthropathy; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Brain, disease (stroke; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Polysaccharides, biological studies ΤТ RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (sulfated, antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Drug delivery systems (sustained-release; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Arthritis Synovial membrane, disease (synovitis, enteropathic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) ΙT Lupus erythematosus (systemic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases) Autoimmune disease ΙT (thyroid; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

Inflammation

ΙT

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Thyroid gland, disease
        (thyroiditis; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Shock (circulatory collapse)
ΙT
        (toxic shock syndrome; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Psoriasis
        (type I; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
    Psoriasis
ΙT
        (type II; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
     Inflammation
ΙT
     Intestine, disease
        (ulcerative colitis; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Eye, disease
ΤТ
     Inflammation
        (uveitis; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
ΙT
     Lung, disease
        (vasculitic diffuse; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     Blood vessel, disease
ΤТ
     Inflammation
        (vasculitis, kidney microscopic; human interleukin 18-binding
        proteins and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
ΙT
     Hepatitis
        (viral, chronic active; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     57-55-6P, 1,2-Propanediol, biological studies 857325-91-8P, Interleukin
     18 (human)
                857326-79-5P 857326-80-8P 857326-81-9P 857326-82-0P
     857326-83-1P 857326-84-2P 857326-85-3P 857326-86-4P 857326-87-5P
     857326-88-6P 857326-89-7P 857326-90-0P 857326-91-1P 857326-92-2P
     857326-93-3P 857326-94-4P 857326-95-5P 857326-96-6P 857326-97-7P
     857326-98-8P 857326-99-9P 857327-00-5P 857327-01-6P 857327-02-7P
     857327-03-8P 857327-04-9P 857327-05-0P 857327-06-1P 857327-07-2P
     857327-08-3P 857327-09-4P 857327-10-7P 857327-11-8P 857327-13-0P 857327-14-1P 857327-15-2P 857327-16-3P
                                                                857327-12-9P
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (amino acid sequence; human interleukin 18-binding proteins
        and antibodies and conjugates for treating
        IL-18-related inflammatory diseases)
     7439-89-6, Iron, biological studies
ΤТ
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (hemosiderosis; human interleukin 18-binding proteins and
        antibodies and conjugates for treating IL-18-related
        inflammatory diseases)
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141977-02-8DP, derivs and conjugates 173480-65-4DP, derivs and

ΙT

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RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
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   (human interleukin 18-binding proteins and antibodies
   and conjugates for treating IL-18-related inflammatory
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RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
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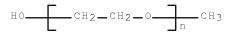
25322-68-3, Polyethylene glycol

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

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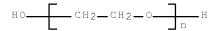
RN 9004-74-4 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), α -methyl- ω -hydroxy- (CA INDEX NAME)



RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 5 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:857632 HCAPLUS Full-text

DOCUMENT NUMBER: 141:348838

TITLE: Bispecific monoclonal <u>antibodies</u> and fragments <u>binding</u> to C3b-like or CR1

receptor for treating viral or bacterial infection

INVENTOR(S): Mohamed, Nehal; Spitalny, George L.; Casey, Leslie S.

PATENT ASSIGNEE(S): Elusys Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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| WO 2004087759 | | | | | A2 | _ | 2004 | 1014 | 1 | WO 2 | 004-1 | US96: | | 20040329 <- | | | | | |
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PRIORITY APPLN. INFO.:
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                                                                W 20040329
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ΕD
     Entered STN: 18 Oct 2004
AΒ
     The present invention provide a bispecific mol. comprising an antibody that
     binds a C3b-like receptor linked to one or more non-neutralizing antigen-
     binding antibodies or fragments thereof. The present invention also provides
     methods to identify non-neutralizing antibodies, and particularly, to identify
     enhancing antibodies. Methods of producing such bispecific mols. and their
     therapeutic and/or prophylactic uses are also provided by the present
     invention.
     ICM C07K016-00
IC
CC
     15-3 (Immunochemistry)
     Section cross-reference(s): 4
ST
     bispecific monoclonal antibody fragment CR1 receptor viral
     bacterial infection
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     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
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        (A; bispecific monoclonal antibodies and fragments
       binding to C3b-like or CR1 receptor for treating viral or
       bacterial infection)
ΙT
     Receptors
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (C3b-like; bispecific monoclonal antibodies and fragments
       binding to C3b-like or CR1 receptor for treating viral or
       bacterial infection)
     Toxins
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (anthrax lethal factor; bispecific monoclonal antibodies and
        fragments binding to C3b-like or CR1 receptor for treating
        viral or bacterial infection)
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (anthrax protective antigen; bispecific monoclonal antibodies
        and fragments binding to C3b-like or CR1 receptor for
       treating viral or bacterial infection)
ΙT
        (anthrax; bispecific monoclonal antibodies and fragments
       binding to C3b-like or CR1 receptor for treating viral or
        bacterial infection)
ΙT
    Infection
        (bacterial; bispecific monoclonal antibodies and fragments
       binding to C3b-like or CR1 receptor for treating viral or
        bacterial infection)
    Animal cell
ΤT
     Animal virus
     Animals
     Bacillus anthracis
    Circulation
    Crosslinking agents
     Eubacteria
     Human
     Infection
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Pathogen

Staphylococcus aureus (bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) ΙT Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) ΙT Polyoxyalkylenes, biological studies RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses) (bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) Antigens ΙT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) Antibodies and Immunoglobulins ΙT RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (bispecific; bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) Antibodies and Immunoglobulins ΤТ RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (fragments; bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) ΙT Toxins RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (microbial; bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) ΙT Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (monoclonal; bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) Complement receptors ΤT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (type 1; bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or bacterial infection) ΙT Infection (viral; bispecific monoclonal antibodies and fragments binding to C3b-like or CR1 receptor for treating viral or

bacterial infection)

IT 25322-68-3, Polyethylene glycol

RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(bispecific monoclonal antibodies and fragments

binding to C3b-like or CR1 receptor for treating viral or

bacterial infection)

IT 25322-68-3, Polyethylene glycol

RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

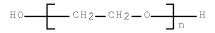
(bispecific monoclonal antibodies and fragments

binding to C3b-like or CR1 receptor for treating viral or

bacterial infection)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 6 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:780739 HCAPLUS Full-text

DOCUMENT NUMBER: 141:276289

TITLE: Bispecific antibodies linked by

polymer and conjugated with therapeutic or

diagnostic agent for immunotherapy and immunodiagnosis

INVENTOR(S): Young, Stephen Peter

PATENT ASSIGNEE(S): The University of Birmingham, UK

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| I | PAT: | ENT I | 70. | | | KIND DATE | | | | | APPL | ICAT | ION 1 | DATE | | | | | |
|--------|------------|----------|-----------|--------|-----|-----------|-----|----------|-----|-----|----------|------|----------|--------------|-----|-----|-----|-----|--|
| - | ——— WO | 2004 | 0810! | 51 | | A1 | _ | 20040923 | | , | WO 2 | 004- | GB10 | 20040311 < | | | | | |
| | W: AE, AG, | | | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | | |
| | | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KΖ, | LC, | |
| | | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | |
| | | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | | RW: | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | |
| | | | BY, | KG, | KΖ, | MD, | RU, | ΤJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | |
| | | | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | |
| | | | SK, | TR, | BF, | ΒJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | |
| | | | TD, | ΤG | | | | | | | | | | | | | | | |
| PRIOR: | ITY | APP1 | LN. | INFO | .: | | | | | 1 | GB 2 | 003- | 5702 | A 20030312 < | | | | | |

ED Entered STN: 24 Sep 2004

The present invention discloses a bispecific antibody (BAb) comprising two antibodies, each of which has a binding specificity to a different epitope situated on the surface of a target structure. Each of said antibodies has a relatively low binding affinity for its resp. epitope. The BAbs produced according to the present invention have much lower affinity for cross-reactive

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non-target tissue due to the lower affinity of the MAbs used to produce them.
     These BAbs still provide high avidity for target tissue due to the cumulative
     nature of the binding interactions.
IC
     ICM C07K016-46
     ICS A61K051-10
CC
     15-3 (Immunochemistry)
     Section cross-reference(s): 1, 3, 8, 9, 63
ST
     bispecific antibody fragment antigen epitope polymer
     linker therapeutic diagnostic
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (IgG; bispecific antibodies linked by polymer and
        conjugated with therapeutic or diagnostic agent for
        immunotherapy and immunodiagnosis)
ΙT
     Imaging agents
        (NMR contrast; bispecific antibodies linked by
        polymer and conjugated with therapeutic or diagnostic agent
        for immunotherapy and immunodiagnosis)
     Cytotoxic agents
ΙT
        (antimetabolites; bispecific antibodies linked by
        polymer and conjugated with therapeutic or diagnostic agent
        for immunotherapy and immunodiagnosis)
     Affinity
ΤТ
     Alkylating agents, biological
     Animal cell
     Animal tissue
     Antibiotics
     Antitumor agents
     B cell (lymphocyte)
     Biomarkers
    Crosslinking agents
     Cytotoxic agents
     Diagnostic agents
     Drugs
     Fluorescent substances
     Hybridoma
       Linking agents
     Liposomes
     Luminescent substances
     Lymphocyte
     Multiple myeloma
     Organ, animal
     Phage display library
     Plasmids
     Retroviral vectors
     Surface plasmon resonance
     T cell (lymphocyte)
        (bispecific antibodies linked by polymer and
        conjugated with therapeutic or diagnostic agent for
        immunotherapy and immunodiagnosis)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (bispecific antibodies linked by polymer and
        conjugated with therapeutic or diagnostic agent for
        immunotherapy and immunodiagnosis)
     Polyoxyalkylenes, biological studies
ΙT
```

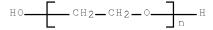
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RL: BSU (Biological study, unclassified); DGN (Diagnostic use); MOA
     (Modifier or additive use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (bispecific antibodies linked by polymer and
        conjugated with therapeutic or diagnostic agent for
        immunotherapy and immunodiagnosis)
ΙT
     Abrins
     Antigens
     Complement
     Interferons
     Interleukins
       Mycotoxins
     Radionuclides, biological studies
     Receptors
       Ricins
       Toxins
     Tumor necrosis factors
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (bispecific antibodies linked by polymer and
        conjugated with therapeutic or diagnostic agent for
        immunotherapy and immunodiagnosis)
     Polymers, uses
ΙT
     RL: MOA (Modifier or additive use); USES (Uses)
        (bispecific antibodies linked by polymer and
        conjugated with therapeutic or diagnostic agent for
        immunotherapy and immunodiagnosis)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (bispecific; bispecific antibodies linked by
        polymer and conjugated with therapeutic or diagnostic agent
        for immunotherapy and immunodiagnosis)
     Antibodies and Immunoglobulins
ΤТ
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (conjugates; bispecific antibodies linked
        by polymer and conjugated with therapeutic or diagnostic
        agent for immunotherapy and immunodiagnosis)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (fragments; bispecific antibodies linked by polymer
        and conjugated with therapeutic or diagnostic agent for
        immunotherapy and immunodiagnosis)
ΙT
     Drug delivery systems
        (immunoconjugates; bispecific antibodies linked by
        polymer and conjugated with therapeutic or diagnostic agent
        for immunotherapy and immunodiagnosis)
ΙT
    Gene
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (knock-down or knock-in; bispecific antibodies linked
        by polymer and conjugated with therapeutic or diagnostic
        agent for immunotherapy and immunodiagnosis)
     Drug delivery systems
ΙT
        (liposomes; bispecific antibodies linked by polymer
        and conjugated with therapeutic or diagnostic agent for
```

10/565,331 immunotherapy and immunodiagnosis) ΙT Antibodies and Immunoglobulins RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (monoclonal; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis) ΙT Chloramines RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nitrogen mustards; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis) ΙT Drug delivery systems (prodrugs; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis) Double stranded RNA ΙT RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (small interfering; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis) ΙT Sesquiterpenes RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (trichothecane; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis) ΙT 25322-68-3, Polyethylene glycol RL: BSU (Biological study, unclassified); DGN (Diagnostic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis) 51-21-8, 5-Fluorouracil 10043-66-0, Iodine-131, biological studies 13981-56-1, Fluorine-18, biological studies 11056-06-7, Bleomycin 14378-26-8, Rhenium-188, biological studies 15663-27-1, cis-Diaminodichloroplatinum(II) 15715-08-9, Iodine-123, biological 15757-86-5, Copper-67, biological studies studies 15758-35-7, Ruthenium-97, biological studies 15765-38-5, Bromine-76, biological studies RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis) 25322-68-3, Polyethylene glycol ΙT RL: BSU (Biological study, unclassified); DGN (Diagnostic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bispecific <u>antibodies linked</u> by polymer and <u>conjugated</u> with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 7 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:368859 HCAPLUS Full-text

DOCUMENT NUMBER: 140:368736

TITLE: Crosslinked compounds and methods of making and using

thereof

INVENTOR(S): Prestwich, Glenn D.; Shu, Xiao Zheng; Luo, Yi; Kirker,

Kelly R.; Liu, Yanchun

PATENT ASSIGNEE(S): University of Utah Research Foundation, USA

SOURCE: PCT Int. Appl., 105 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAT | TENT : | NO. | | | KIN | D | DATE 20040506 20040930 | | | APPL | ICAT | ION 1 | NO. | DATE | | | | | |
|----------------|--------|------|------|-----|------------|-----|------------------------|------|-----|------|------|--------|-------------|--------------|-------|------|-------|--|--|
| | | | | | | | | | , | WO 2 | 003- | US15 | 519 | 20030515 < | | | | | |
| | W: | | | | | | | AZ, | | | | | | | | | | | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FΙ, | GB, | GD, | GE, | GH, | | |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KΡ, | KR, | KΖ, | LC, | LK, | LR, | | |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | ${ m MZ}$, | NΙ, | NO, | NΖ, | OM, | | |
| | | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | ΤJ, | TM, | TN, | TR, | TT, | | |
| | | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | | | |
| | RW: | GH, | GM, | KΕ, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, | | |
| | | KG, | KΖ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | | |
| | | FΙ, | FR, | GB, | GR, | HU, | ΙE, | ΙΤ, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR, | | |
| | | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | TG | | |
| CA | 2489 | 712 | | | A1 2004050 | | | | 1 | CA 2 | 003- | 2489 | 712 | 20030515 < | | | | | |
| AU | 2003 | 2995 | 09 | | A1 | | 2004 | 0513 | | AU 2 | 003- | 299509 | | | 20030 | | 515 < | | |
| EP | 1539 | 799 | | | A2 | | 2005 | 0615 | | EP 2 | 003- | 7997 | 96 | 20030515 < | | | | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| | | ΙE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | SK | | | |
| US 20050176620 | | | | | | | 2005 | 0811 | | US 2 | 005- | 5191 | 73 | | 2 | 0050 | 419 < | | |
| RIT | Y APP | LN. | INFO | .: | | | | | | US 2 | 002- | 3905 | 04P | P 20020621 < | | | | | |
| | | | | | | | | | , | WO 2 | 003- | US15 | 519 | W 20030515 < | | | | | |
| | | | | | | | | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 140:368736

ED Entered STN: 06 May 2004

Described herein are crosslinked compds. useful in numerous treatments. Described herein are methods of making crosslinked compds. via (1) the oxidative coupling of two or more thiol compds. or (2) by the reaction between at least one thiol compound with at least one thiol-reactive compound In one aspect described herein is a method for preparing a compound, wherein the method includes reacting a first thiolated compound containing a macromol. and a linker with a second thiolated compound having at least one SH group in the presence of an oxidant wherein the first thiolated compound and second thiolated compound are the same or different compds. In one aspect, the macromol. can be a pharmaceutically-acceptable compound. In one aspect, the macromol. can be polysaccharide such as hyaluronan.

IC ICM A61K

```
CC 1-12 (Pharmacology)
     Section cross-reference(s): 33, 34, 63
ΙT
    Aromatic compounds
    Polyamides, biological studies
     Polyesters, biological studies
     Polyethers, biological studies
     Polyolefins
     Polythioethers
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (conjugates, linkers; crosslinked compds. containing
        macromols. and methods of making them via oxidative coupling of thiol
        compds. and thiol-reactive compds. and their use as pharmaceutical
        agents)
ΤТ
    Drugs
        (conjugates; crosslinked compds. containing macromols. and
        methods of making them via oxidative coupling of thiol compds. and
        thiol-reactive compds. and their use as pharmaceutical agents)
     Collagens, biological studies
ΙT
     Decorins
     Elastins
     Fibronectins
     Gelatins, biological studies
     Glycolipids
     Glycoproteins
     Laminins
     Lipids, biological studies
     Macromolecular compounds
     Nucleic acids
     Oligonucleotides
       Peptides, biological studies
     Polymers, biological studies
       Polyoxyalkylenes, biological studies
     Polysaccharides, biological studies
     Proteins
     Thiols, biological studies
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (conjugates; crosslinked compds. containing macromols. and
        methods of making them via oxidative coupling of thiol compds. and
        thiol-reactive compds. and their use as pharmaceutical agents)
ΤТ
    Anabolic agents
    Analgesics
     Anti-infective agents
     Anti-inflammatory agents
     Antitumor agents
       Drug delivery systems
     Fluorescent indicators
     Human
     Hydrogels
     Infection
     Inflammation
     Isotope indicators
       Linking agents
     Neoplasm
     Pain
     Spin labels
     Wound
     Wound healing
     Wound healing promoters
```

(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Polyoxyalkylenes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Proteins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(extracellular matrix-associated, <u>conjugates</u>; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Drug delivery systems

(hydrogels; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Imines

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyimines, conjugates, linkers; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Glycosaminoglycans, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sulfated, <u>conjugates</u>; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Radionuclides, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(with chelating agents, conjugates; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Chelating agents

(with radionuclides, <u>conjugates</u>; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT 26570-49-9DP, conjugates with hyaluronic acid and thiodipropionic hydrazides 685143-17-3P 685143-18-4P 685143-19-5DP, conjugates with hyaluronic acid acrylates
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

TT 50-07-7D, Mitomycin C, conjugates 9000-11-7D, Carboxymethylcellulose, conjugates 9000-69-5D, Pectin, conjugates 9003-01-4D, Polyacrylic acid, conjugates 9003-16-1D, Polyfumaric acid, conjugates 9004-61-9D, Hyaluronan, conjugates 9005-32-7D, Alginic acid, conjugates 9005-49-6D, Heparin, conjugates 9050-30-0D, 9007-28-7D, Chondroitin sulfate, conjugates 9050-30-0D,

Heparan sulfate, conjugates 9067-32-7D, Hyaluronic acid sodium salt, conjugates 24967-94-0D, Dermatan sulfate, conjugates 24991-23-9D, conjugates 25322-68-3D , PEG, conjugates 25513-46-6D, Polyglutamic acid, conjugates 25608-40-6D, Polyaspartic acid, conjugates 26063-13-8D, Polyaspartic acid, conjugates 36655-86-4D, Polyglucuronic acid, conjugates 70226-44-7D, Heparan, conjugates 75634-40-1D, Dermatan, conjugates 132517-61-4D, conjugates RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents) 50-07-7, Mitomycin C 814-68-6, Acryloyl chloride 9004-61-9, Hyaluronan ΤT 24991-53-5 **25322-68-3**, PEG 50906-77-9 52821-72-4 RL: RCT (Reactant); RACT (Reactant or reagent) (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents) 25852-47-5P 26570-48-9P ΙT 160556-48-9P 476197-24-7DP, mitromycin acrylate conjugate derivs., polymers, adducts with polyethylene glycol acrylate 476197-24-7P 476197-25-8P 685143-16-2P 685143-19-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents) 50906-77-9D, conjugates 52821-72-4D, ΙT conjugates RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (linker; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents) 26570-48-9DP, conjugates with hyaluronic acid and thiodipropionic hydrazides RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents) RN 26570-48-9 HCAPLUS Poly(oxy-1,2-ethanediyl), α -(1-oxo-2-propen-1-yl)- ω -[(1-oxo-2-CN propen-1-yl)oxy]- (CA INDEX NAME)

$$H_2C$$
 $=$ CH $=$ CH_2 $=$

IT <u>25322-68-3D</u>, <u>FEG</u>, <u>conjugates</u>
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

- RN 25322-68-3 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)

IT 25322-68-3, PEG

RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

- RN 25322-68-3 HCAPLUS
- CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)

IT 25852-47-5P 26570-48-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

- RN 25852-47-5 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -(2-methyl-1-oxo-2-propen-1-yl)- ω [(2-methyl-1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)

$$\begin{array}{c|c} ^{\rm H2C} \stackrel{\rm O}{\coprod} & \stackrel{\rm C}{\coprod} & {\rm CH_2} \\ {\rm Me-C-C-C-Me} \end{array}$$

- RN 26570-48-9 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -(1-oxo-2-propen-1-yl)- ω -[(1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)

$$H_2C$$
 CH CH_2 CH_2 CH_2 CH_3 CH CH_4 CH_2

IT 52821-72-4D, conjugates

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(<u>linker</u>; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

RN 52821-72-4 HCAPLUS

CN Butanoic acid, 4,4'-dithiobis-, dihydrazide (9CI) (CA INDEX NAME)

L147 ANSWER 8 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:267260 HCAPLUS Full-text

DOCUMENT NUMBER: 140:297533

TITLE: Peptides and related molecules that modulate

nerve growth factor activity

INVENTOR(S): Boone, Thomas C.; Wild, Kenneth D., Jr.; Sitney, Karen

C.; Min, Hosung; Kimmel, Bruce

PATENT ASSIGNEE(S): Amgen Inc., USA

SOURCE: PCT Int. Appl., 267 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P

| PAT | CENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | | DATE | | | | | |
|---------------------|---------|-------|--------|------|-------------|----------|------|------|-----------------|------|----------|----------|------|------------|------------|------|-----|---|--|
| WO | 2004 | 0263 | 29 | | A1 20040401 | | | | | WO 2 | 003- | US29 | | 20030919 < | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FΙ, | GB, | GD, | GE, | GH, | | |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, | LK, | LR, | | |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NΖ, | OM, | PH, | | |
| | | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | ТJ, | TM, | TN, | TR, | TT, | TZ, | | |
| | | UA, | UG, | UΖ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | | | | | |
| | RW: | GH, | GM, | ΚE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, | | |
| | | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | | |
| | | FΙ, | FR, | GB, | GR, | HU, | ΙE, | ΙΤ, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR, | | |
| | | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | ΤG | | |
| US | 2004 | A1 | | 2004 | 0624 | | US 2 | 003- | 6664 | 80 | | 2 | 0030 | 918 | < | | | | |
| US | 6919 | 426 | | | В2 | | 2005 | 0719 | | | | | | | | | | | |
| CA | 2497 | 982 | | | A1 200404 | | | | CA 2003-2497982 | | | | | | | | | | |
| AU | 2003 | 2751. | 37 | | A1 | | 2004 | 0408 | | AU 2 | 003- | 2751 | 37 | | 2 | 0030 | 919 | < | |
| AU | 2003 | 2751. | 37 | | В2 | | 2007 | 1213 | | | | | | | | | | | |
| ΕP | 1545 | 581 | | | A1 | | 2005 | 0629 | EP 2003-759405 | | | | | | 20030919 < | | | | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | SK | | | |
| JP | 2006 | 5052 | 55 | | Τ | | 2006 | 0216 | | JP 2 | 004- | 5384 | 15 | | 2 | 0030 | 919 | < | |
| MX | 2005 | PA02 | 869 | | A | | 2005 | 0527 | | MX 2 | 005- | PA28 | 69 | | 2 | 0050 | 315 | < | |
| US | 2005 | 0222 | 035 | | A1 | | 2005 | 1006 | | US 2 | 005- | 1277 | 02 | | 2 | 0050 | 511 | < | |
| ORITY APPLN. INFO.: | | | | | | | | | | US 2 | 002- | 4125 | 24P | | P 2 | 0020 | 919 | < | |
| | | | | | | | | | | US 2 | 003- | 6664 | 80 | | A 2 | 0030 | 918 | < | |
| | | | | | | | | | | WO 2 | 003- | US29 | 866 | | W 2 | 0030 | 919 | < | |
| 0.0 | ALIDOR. | (C) . | | | MAD | ייי ע כו | 140. | 2075 | 2.2 | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 140:297533

Entered STN: 01 Apr 2004 EDAΒ The present invention relates to certain biol. active peptides and polypeptides which can be used as therapeutics or prophylactics against diseases or disorders linked to nerve growth factor (NGF) as the causative agent. In one aspect of the present invention, pharmacol. active polypeptides comprising peptides linked to one or more Fc domains are provided. IC ICM A61K038-10 ICS A61K038-16; C07H021-04; C07K007-08; C07K014-00 CC 1-11 (Pharmacology) peptide analog nerve growth factor modulator ST Antibodies and Immunoglobulins ΙT RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Fc domain, conjugates with peptides; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain) Antibodies and Immunoglobulins TΤ RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (IgG1, Fc domain, conjugates with peptides; paptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain) ΤT (acute; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain) ΙT (allergic dermatitis, pain in; paptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain) ΙT Allergy Inflammation Nose, disease (allergic rhinitis, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as antibody Fc domains for treatment of diseases associated with pain) ΙT Dermatitis (allergic, pain in; paptions and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain) ΤТ Pain Skin, disease (allodynia; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as antibody Fc domains for treatment of diseases associated with pain) ΤT Leg (amputation, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain) ΙT Inflammation (carditis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as

antibody Fc domains for treatment of diseases associated with

pain)

IT Drug delivery systems

(carriers; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Nerve, disease

Pain

(causalgia; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Eukaryota

(cell, peptide-encoding vector expression in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Inflammation

(chronic, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Headache

(cluster; <u>peptides</u> and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Inflammation

Intestine, disease

(colitis, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Folyoxyalkylenes, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates with peptides; peptides and

related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Peptides, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates, with Fc domains and linkers;

peptides and related mols. that modulate nerve growth factor
activity linked to vehicles such as antibody Fc

domains for treatment of diseases associated with pain)

IT Lipids, biological studies

Oligosaccharides, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates, with peptides; peptides and

related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Peptides, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cyclic; peptides and related mols. that modulate nerve growth factor activity $\verb|linked|$ to vehicles such as

antibody Fc domains for treatment of diseases associated with
pain)

IT Bladder, disease

Inflammation

(cystitis, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Nerve, disease

(deafferentation syndrome, pain in; poptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Nerve, disease

(demyelination, pain in; paptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Nerve, disease

(diabetic neuropathy, pain in; paptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Drug delivery systems

(diluents; paptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Epithelium

(disease, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Viscera

(disease, pain; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Gastrointestinal motility

(disorder, dysmotility, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Ulcer

(duodenal, pain in; partides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Intestine, disease

(duodenum, ulcer, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>entibody</u> Fc domains for treatment of diseases associated with pain)

IT Ulcer

(gastric, pain in; partides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Bladder, disease

(hyperactive, pain in; peptides and related mols. that

modulate nerve growth factor activity \underline{linked} to vehicles such as $\underline{antibody}$ Fc domains for treatment of diseases associated with pain)

IT Pain

(hyperalgesia; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Human herpesvirus

(infection, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Intestine, disease

(inflammatory, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Headache

(migraine; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Respiratory system

Urogenital system

(motility disorder, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Heart, disease

Inflammation

(myocarditis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Nerve, disease

Pain

(neuralgia, from herpes virus infection, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Inflammation

Nerve, disease

(neuritis, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Nerve, disease

(neuropathy, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Eye, disease

Inflammation

(ophthalmitis, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Toxins

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

```
(pain from; peptides and related mols. that modulate nerve
        growth factor activity linked to vehicles such as
        antibody Fc domains for treatment of diseases associated with
        pain)
ΙT
    AIDS (disease)
     Abscess
     Alcoholism
     Arthritis
     Bronchi, disease
     Connective tissue, disease
     Dermatitis
     Diabetes mellitus
     Digestive tract, disease
     Drug toxicity
     Inflammation
     Lupus erythematosus
    Myositis
     Neoplasm
     Osteoarthritis
     Pruritus
     Psoriasis
     Rheumatic diseases
     Sunburn
     Surgery
     Tooth
     Vitiliao
        (pain in; peptides and related mols. that modulate nerve
        growth factor activity linked to vehicles such as
        antibody Fc domains for treatment of diseases associated with
       pain)
ΙT
    Cell
     Escherichia coli
     Prokaryota
        (peptide-encoding vector expression in; peptides
        and related mols. that modulate nerve growth factor activity
        linked to vehicles such as antibody Fc domains for
        treatment of diseases associated with pain)
ΤТ
     Genetic vectors
        (peptide-encoding; peptides and related mols. that
        modulate nerve growth factor activity linked to vehicles such
        as antibody Fc domains for treatment of diseases associated with
       pain)
TΤ
     Polynucleotides
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (peptide-encoding; peptides and related mols. that
        modulate nerve growth factor activity linked to vehicles such
        as antibody Fc domains for treatment of diseases associated with
        pain)
ΙT
    Analgesics
     Antimigraine agents
       Drug delivery systems
     Headache
     Human
    Molecular cloning
     Pain
       Peptide library
     Phage display library
        (paptides and related mols. that modulate nerve growth factor
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activity linked to vehicles such as antibody Fo
domains for treatment of diseases associated with pain)

IT Peptides, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(<u>peptides</u> and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Inflammation

Nose, disease

(rhinitis, vasomotor, pain in; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Brain, disease

(stroke, pain in; paptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Headache

(tension; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Injury

(trauma, pain in; paptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Nerve, disease

Pain

(trigeminal neuralgia; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Stomach, disease

(ulcer, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Infection

(viral, herpes virus, pain in; pertides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Disease, animal

(visceral pain; peptides and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such as <u>antibody</u> Fc domains for treatment of diseases associated with pain)

IT Pain

(visceral; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Glycoconjugates

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(with <u>peptides</u>; <u>peptides</u> and related mols. that modulate nerve growth factor activity <u>linked</u> to vehicles such

as antibody Fc domains for treatment of diseases associated with pain) ΙT 9061-61-4, Nerve growth factor RL: BSU (Biological study, unclassified); BIOL (Biological study) (peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain) 57-88-5D, Cholesterol, conjugates with peptides ΤТ 7093-67-6D, conjugates with peptides and Fc domains 18861-82-0D, conjugates with peptides and Fc domains 25322-68-3D, Polyethylene glycol, conjugates with peptides 676329-46-7D, linker -peptide-Fc domain conjugates 676329-48-9D, linker-peptide-Fc domain conjugates 676329-50-3D, linker-peptide-Fc domain 676329-51-4D, linker-peptide-Fc conjugates domain conjugates 676329-53-6D, linkerpeptide-Fc domain conjugates 676329-54-7D, linker-peptide-Fc domain conjugates 676329-55-8D, linker-peptide-Fc domain conjugates 676329-56-9 676329-56-9D, linkerpeptide-Fc domain conjugates 676329-58-1D, linker-peptide-Fc domain conjugates 676329-60-5 676329-60-5D, linker-peptide-Fc domain conjugates 676329-63-8D, linker-peptide-Fc domain conjugates 676329-65-0D, linkerpeptide-Fc domain conjugates 676329-67-2D, linker-peptide-Fc domain conjugates 676329-69-4D, linker-peptide-Fc domain conjugates 676329-71-8D, linker-peptide-Fc domain conjugates 676329-73-0D, linkerpeptide-Fc domain conjugates 676329-75-2D, linker-peptide-Fc domain conjugates 676329-76-3D, linker-peptide-Fc domain 676329-77-4D, linker-peptide-Fc conjugates domain conjugates 676329-78-5 676329-78-5D, linker -peptide-Fc domain conjugates 676329-79-6D, linker-peptide-Fc domain conjugates 676329-80-9D, linker-peptide-Fc domain 676329-81-0 676329-81-0D, <u>linker</u>conjugates peptide-Fc domain conjugates 676329-82-1 676329-82-1D, linker-peptide-Fc domain 676329-83-2D, linker-peptide-Fc conjugates domain conjugates 676329-84-3D, linkerpeptide-Fc domain conjugates 676329-85-4D, linker-peptide-Fc domain conjugates 676329-86-5D, linker-peptide-Fc domain conjugates 676329-87-6D, linker-peptide-Fc domain conjugates 676329-88-7D, linkerpeptide-Fc domain conjugates 676329-89-8D, linker-peptide-Fc domain conjugates 676329-90-1D, linker-peptide-Fc domain conjugates 676329-91-2D, linker-peptide-Fc domain conjugates 676329-92-3D, linker-676329-93-4D, peptide-Fc domain conjugates linker-peptide-Fc domain conjugates 676329-94-5D, linker-peptide-Fc domain conjugates 676329-95-6D, linker-peptide-Fc domain conjugates 676329-96-7D, linkerpeptide-Fc domain conjugates 676329-97-8D,

linker-peptide-Fc domain conjugates 676329-98-9D, linker-peptide-Fc domain conjugates 676329-99-0D, linker-peptide-Fc domain conjugates 676330-00-0D, linkerpeptide-Fc domain conjugates 676330-01-1D, linker-peptide-Fc domain conjugates 676330-02-2D, linker-peptide-Fc domain conjugates 676330-03-3D, linker-peptide-Fc domain conjugates 676330-04-4D, linkerpeptide-Fc domain conjugates 676330-05-5D, linker-peptide-Fc domain conjugates 676330-06-6D, linker-peptide-Fc domain conjugates 676330-07-7D, linker-peptide-Fc 676330-08-8D, linkerdomain conjugates peptide-Fc domain conjugates 676330-09-9D, linker-peptide-Fc domain conjugates 676330-10-2D, linker-peptide-Fc domain conjugates 676330-12-4D, linker-peptide-Fc domain conjugates 676330-13-5D, linkerpeptide-Fc domain conjugates 676330-15-7D, linker-peptide-Fc domain conjugates 676330-16-8D, linker-peptide-Fc domain conjugates 676330-17-9D, linker-peptide-Fc domain conjugates 676330-18-0D, linkerpeptide-Fc domain conjugates 676330-48-6 676330-48-6D, linker-peptide-Fc domain 676330-49-7 676330-49-7D, <u>linker</u>conjugates peptide-Fc domain conjugates 676330-50-0D, linker-peptide-Fc domain conjugates 676330-51-1D, linker-peptide-Fc domain conjugates 676330-52-2D, linker-peptide-Fc domain conjugates 676330-53-3D, linkerpeptide-Fc domain conjugates 676330-54-4 676330-54-4D, linker-peptide-Fc domain <u>conjugates</u> 676330-55-5 676330-55-5D, <u>linker</u>peptide-Fc domain conjugates 676330-56-6 676330-56-6D, linker-peptide-Fc domain conjugates 676330-57-7 676330-57-7D, linkerpeptide-Fc domain conjugates 676330-58-8D, linker-peptide-Fc domain conjugates 676330-59-9D, linker-peptide-Fc domain 676330-60-2D, linker-peptide-Fc conjugates domain conjugates 676330-61-3D, linkerpeptide-Fc domain conjugates 676330-62-4D, linker-peptide-Fc domain conjugates 676330-63-5D, linker-peptide-Fc domain conjugates 676330-64-6D, linker-peptide-Fc domain conjugates 676330-65-7 676330-65-7D, linker -peptide-Fc domain conjugates 676330-66-8D, linker-peptide-Fc domain conjugates 676330-67-9 676330-67-9D, linker-peptide-Fc domain conjugates 676330-68-0D, linker-peptide-Fc domain conjugates 676330-69-1D, linkerpeptide-Fc domain conjugates 676330-70-4 676330-70-4D, linker-peptide-Fc domain conjugates 676330-71-5D, linker-peptide-Fc domain conjugates 676330-72-6D, linkerpeptide-Fc domain conjugates 676330-73-7D, linker-peptide-Fc domain conjugates 676330-74-8 676330-74-8D, linker-peptide-Fc domain

conjugates 676330-75-9D, linker-peptide-Fc domain conjugates 676330-76-0 676330-76-0D, linker -peptide-Fc domain conjugates 676330-77-1 676330-77-1D, linker-peptide-Fc domain conjugates 676330-78-2 676330-78-2D, linkerpeptide-Fc domain conjugates 676330-79-3 676330-79-3D, linker-peptide-Fc domain conjugates 676330-80-6 676330-80-6D, linkerpeptide-Fc domain conjugates 676330-81-7D, linker-peptide-Fc domain conjugates 676330-82-8 676330-82-8D, linker-peptide-Fc domain conjugates 676330-83-9 676330-83-9D, linkerpeptide-Fc domain conjugates 676330-84-0D, linker-peptide-Fc domain conjugates 676330-85-1 676330-85-1D, <u>linker-peptide-Fc</u> domain conjugates 676330-86-2 676330-86-2D, linkerpeptide-Fc domain conjugates 676330-87-3 676330-87-3D, linker-peptide-Fc domain conjugates 676330-88-4D, linker-peptide-Fc domain conjugates 676330-89-5D, linkerpeptide-Fc domain conjugates 676330-90-8D, linker-peptide-Fc domain conjugates 676330-91-9D, linker-peptide-Fc domain conjugates 676330-92-0 676330-92-0D, linkerpeptide-Fc domain conjugates 676330-93-1 676330-93-1D, linker-peptide-Fc domain conjugates 676330-94-2D, linker-peptide-Fc domain conjugates 676330-95-3D, linker-676330-96-4D, peptide-Fc domain conjugates linker-peptide-Fc domain conjugates 676330-97-5 676330-97-5D, <u>linker-peptide-Fc</u> domain conjugates 676330-98-6D, linker-peptide-Fc domain conjugates 676330-99-7D, linkerpeptide-Fc domain conjugates 676331-00-3D, linker-peptide-Fc domain conjugates 676331-01-4D, linker-peptide-Fc domain 676331-02-5D, linker-peptide-Fc conjugates domain conjugates 676331-03-6D, linkerpeptide-Fc domain conjugates 676331-04-7D, linker-peptide-Fc domain conjugates 676331-05-8 676331-05-8D, linker-peptide-Fc domain conjugates 676331-06-9D, linker-peptide-Fc domain conjugates 676331-07-0D, linkerpeptide-Fc domain conjugates 676331-08-1D, linker-peptide-Fc domain conjugates 676331-10-5D, linker-peptide-Fc domain conjugates 676331-11-6D, linker-peptide-Fc domain conjugates 676331-12-7D, linkerpeptide-Fc domain conjugates 676331-13-8 676331-13-8D, linker-peptide-Fc domain conjugates 676331-14-9D, linker-peptide-Fc domain conjugates 676331-15-0D, linkerpeptide-Fc domain conjugates 676331-16-1D, linker-peptide-Fc domain conjugates 676331-17-2D, linker-peptide-Fc domain conjugates 676331-18-3D, linker-peptide-Fc domain conjugates 676331-19-4 676331-19-4D, linker -peptide-Fc domain conjugates 676331-20-7 676331-20-7D, linker-peptide-Fc domain conjugates 676331-21-8 676331-21-8D, linker-

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peptide-Fc domain conjugates
                                    676331-22-9
     676331-22-9D, linker-peptide-Fc domain
     conjugates
                   676373-30-1D, linker-peptide-Fc
                         676373-31-2D, linker-
     domain conjugates
                                    676373-32-3D,
     peptide-Fc domain conjugates
     linker-peptide-Fc domain conjugates
     676373-33-4D, conjugates with peptides 676373-34-5
     676373-35-6
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (peptides and related mols. that modulate nerve growth factor
        activity linked to vehicles such as antibody Fc
        domains for treatment of diseases associated with pain)
     637-84-3
               676381-89-8 676381-90-1
ΙT
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; peptides and related mols.
        that modulate nerve growth factor activity)
     266993-98-0 266993-99-1 266994-00-7 371161-48-7 676330-19-1
ΤТ
     676330-20-4 676330-21-5
                                 676330-22-6 676330-23-7 676330-24-8
     676330 - 25 - 9 \qquad 676330 - 26 - 0 \qquad 676330 - 27 - 1 \qquad 676330 - 28 - 2 \qquad 676330 - 29 - 3
     676330 - 30 - 6 \qquad 676330 - 31 - 7 \qquad 676330 - 32 - 8 \qquad 676330 - 33 - 9 \qquad 676330 - 34 - 0
     676330 - 35 - 1 \qquad 676330 - 36 - 2 \qquad 676330 - 37 - 3 \qquad 676330 - 38 - 4 \qquad 676330 - 39 - 5
     676330-40-8 676330-41-9 676330-42-0 676330-43-1 676330-44-2
     676330-45-3 676330-46-4 676330-47-5 676380-80-6 676380-81-7
     676380-82-8 676380-83-9 676380-84-0 676380-85-1 676380-86-2
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676380-92-0 676380-93-1 676380-94-2 676380-95-3 676380-96-4
     676380 - 97 - 5 676380 - 98 - 6 676380 - 99 - 7 676381 - 00 - 3 676381 - 01 - 4
     676381 - 02 - 5 676381 - 03 - 6 676381 - 04 - 7 676381 - 05 - 8 676381 - 06 - 9
     676381-07-0 676381-08-1 676381-09-2 676381-10-5 676381-11-6
     676381-12-7 676381-13-8 676381-14-9 676381-15-0 676381-16-1
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     676381-22-9
     676381-27-4
     RL: PRP (Properties)
        (unclaimed protein sequence; peptides and related mols. that
        modulate nerve growth factor activity)
     676381 - 28 - 5 676381 - 29 - 6 676381 - 30 - 9 676381 - 31 - 0 676381 - 32 - 1
ΙT
                                 676381-35-4 676381-36-5 676381-37-6
     676381-33-2 676381-34-3
     676381 - 48 - 9 \qquad 676381 - 49 - 0 \qquad 676381 - 50 - 3 \qquad 676381 - 51 - 4 \qquad 676381 - 52 - 5
     676381 - 53 - 6 676381 - 54 - 7 676381 - 55 - 8 676381 - 56 - 9 676381 - 57 - 0
     676381-58-1 676381-59-2 676381-60-5 676381-61-6 676381-62-7
     676381-63-8 676381-64-9 676381-65-0 676381-66-1 676381-67-2
     676381 - 68 - 3 \qquad 676381 - 69 - 4 \qquad 676381 - 70 - 7 \qquad 676381 - 71 - 8 \qquad 676381 - 72 - 9
     676381 - 73 - 0 \qquad 676381 - 74 - 1 \qquad 676381 - 75 - 2 \qquad 676381 - 76 - 3 \qquad 676381 - 77 - 4
     676381 - 78 - 5 676381 - 79 - 6 676381 - 80 - 9 676381 - 81 - 0 676381 - 82 - 1
     676381-83-2 676381-84-3 676381-85-4 676381-86-5 676381-87-6
     676381-88-7
     RL: PRP (Properties)
        (unclaimed sequence; peptides and related mols. that modulate
        nerve growth factor activity)
ΙT
     25322-68-3D, Polyethylene glycol,
     conjugates with peptides
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (peptides and related mols. that modulate nerve growth factor
        activity linked to vehicles such as antibody Fc
        domains for treatment of diseases associated with pain)
```

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 9 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:252616 HCAPLUS Full-text

DOCUMENT NUMBER: 140:269533

TITLE: Bispecific <u>antibodies</u> specific to C3b-like

receptor and antigen or autoantigen coupled by

polyethylene glycol linkers

for treating infection or autoimmune disease

INVENTOR(S): Mohamed, Nehal; Casey, Leslie; Porter, James P.; Wang,

Xiaoliang; Sesay, Muctarr; Lee, Lihsyng Stanford

PATENT ASSIGNEE(S): Elusys Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PA: | CENT 1 | NO. | | | KIND DATE | | | | | APPL | ICAT | ION 1 | DATE | | | | | | |
|------|----------------|--------|------|-----|-----|-------------|-----|----------------------|------|-----|------|--------------|-------|------|------------|--------------|------|--------|--|--|
| | | 2004 | | | | A2 | | 20040325 20040729 | | | WO 2 | 003- | US29 | 059 | | 20030916 | | | | |
| | ,,, | W: | _ | | | _ | | | AZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | | |
| | | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | | |
| | | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, | LK, | LR, | | |
| | | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | OM, | | |
| | | | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | ТJ, | TM, | TN, | | |
| | | | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | |
| | | RW: | GH, | GM, | KE, | LS, | MW, | ${ m MZ}$, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, | | |
| | | | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | | |
| | | | FI, | FR, | GB, | GR, | HU, | IE, | IT, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR, | | |
| | | | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | |
| | CA | 2499 | 075 | | | A1 20040325 | | | | | CA 2 | 003- | 2499 | 075 | 20030916 < | | | | | |
| | AU | 2003 | 2706 | 86 | | A1 | | 20040430 | | | AU 2 | 003- | 2706 | 0686 | | 20 | 0030 | 916 <- | | |
| | ΕP | 1539 | 811 | | | A2 | | 2005 | 0615 | | EP 2 | 003- | 7523 | 94 | | 2 | 0030 | 916 <- | | |
| | | R: | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | PT, | | |
| | | | ΙE, | SI, | LT, | LV, | FΙ, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | SK | | | |
| | - | 2005 | | - | | | | | | | | | | | | 20030916 < | | | | |
| | US 20060153839 | | | | | | | 2006 | 0713 | | US 2 | 005- | 5279. | 36 | | 20050316 < | | | | |
| PRIO | .: | | | | | | | | | | | P 20020916 < | | | | | | | | |
| | | | | | | | | | | | WO 2 | 003- | US29 | 059 | 1 | W 20030916 < | | | | |

OTHER SOURCE(S): MARPAT 140:269533

ED Entered STN: 26 Mar 2004

AB The invention relates to a bispecific mol. comprising a first recognition binding moiety that binds a Cab-like receptor cross-linked using a poly-(ethylene glycol) ('PEG') linker with one or more second recognition binding moieties that bind a mol. The invention also relates to methods of producing such bispecific mols. and to therapeutic uses of such bispecific mols.

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IC
    ICM C12N
CC
    15-2 (Immunochemistry)
     Section cross-reference(s): 63
ST
     bispecific antibody C3b like receptor antigen infection
     autoimmune disease
ΙT
     Receptors
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (C3b-like; bispecific antibodies specific to C3b-like
        receptor and antigen or autoantigen coupled by polyethylene
        glycol linkers for treating infection or autoimmune
        disease)
     Antibodies and Immunoglobulins
     RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (IgG2a; bispecific antibodies specific to C3b-like receptor
        and antigen or autoantigen coupled by polyethylene
        glycol linkers for treating infection or autoimmune
        disease)
ΙT
     Antibodies and Immunoglobulins
     RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (IqG; bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
     Animal virus
ΤТ
     Eubacteria
        (antigen; bispecific antibodies specific to C3b-like receptor
        and antigen or autoantigen coupled by polyethylene
        glycol linkers for treating infection or autoimmune
        disease)
     Antibodies and Immunoglobulins
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (autoantibodies; bispecific antibodies specific to C3b-like
        receptor and antigen or autoantigen coupled by polyethylene
        glycol linkers for treating infection or autoimmune
        disease)
ΙT
    Antigens
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (autoantigens; bispecific antibodies specific to C3b-like
        receptor and antigen or autoantigen coupled by polyathylena
        glycol linkers for treating infection or autoimmune
        disease)
ΙT
    Infection
        (bacterial; bispecific antibodies specific to C3b-like
        receptor and antigen or autoantigen coupled by polyethylene
        glycol linkers for treating infection or autoimmune
        disease)
    Autoimmune disease
ΤT
     Bacillus anthracis
     Circulation
     Crosslinking agents
     Drugs
     Epitopes
     Functional groups
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Human

```
Immunotherapy
     Infection
       Linking agents
     Mammalia
     Mus
     Pathogen
     Primates
     Rodentia
     Size-exclusion chromatography
        (bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
     Aldehydes, biological studies
ΙT
       Polyoxyalkylenes, biological studies
     RL: BSU (Biological study, unclassified); BUU (Biological use,
     unclassified); BIOL (Biological study); USES (Uses)
        (bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
     Antigens
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
     Nucleic acids
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
     Oligosaccharides, biological studies
ΤТ
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
ΙT
     Peptides, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
ΤT
     Proteins
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific \underline{\mathtt{antibodies}} specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
ΤТ
     Toxins
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific antibodies specific to C3b-like receptor and
        antigen or autoantigen coupled by polyethylene glycol
        linkers for treating infection or autoimmune disease)
     Molecules
ΙT
        (bispecific; bispecific antibodies specific to C3b-like
        receptor and antigen or autoantigen coupled by polyethylene
        glycol linkers for treating infection or autoimmune
        disease)
```

IT Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(bispecific; bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene</u> <u>alycol linkers</u> for treating infection or autoimmune disease)

IT Drug delivery systems

(carriers; bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene</u> <u>alycol linkers</u> for treating infection or autoimmune disease)

IT Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(chimeric; bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene glycol linkers</u> for treating infection or autoimmune disease)

IT Medical goods

(containers; bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene</u> <u>glycol linkers</u> for treating infection or autoimmune disease)

IT Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(fragments; bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene</u> <u>glycol linkers</u> for treating infection or autoimmune disease)

IT Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(heavy chain; bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethyleneglycol linkers</u> for treating infection or autoimmune disease)

IT Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(humanized; bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene</u> <u>glycol linkers</u> for treating infection or autoimmune disease)

IT Polyoxyalkylenes, biological studies

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hydrazide, hydrazine and aldehyde derivs.; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol

<u>linkers</u> for treating infection or autoimmune disease)

IT Reagents

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

10/565,331 (hydrazine or aldehyde-modifying; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Antibodies and Immunoglobulins RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (light chain; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Containers (medical; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Antibodies and Immunoglobulins RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (monoclonal; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Antigens RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (protective; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Organic compounds, biological studies RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (small; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Substitution reaction (thiolation; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Complement receptors RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (type 1; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease) Infection (viral; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

60444-78-2, Succinimidyl 4-formylbenzoate 68181-17-9, SPDP

76931-93-6, Succinimidyl acetylthioacetate 174459-58-6 357277-60-2

ΙT

ΙT

ΙT

ΙT

ΙT

TΤ

ΙT

ΤТ

25322-68-3, Polyethylene glycol

25322-68-3D, PEG, hydrazide, hydrazine and aldehyde

75

362522-50-7, Succinimidyl 6-hydrazinonicotinate acetone hydrazone 674369-01-8 674369-02-9 674369-03-0

RL: BSU (Biological study, unclassified); BUU (Biological use,

unclassified); BIOL (Biological study); USES (Uses)

(bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene glycol</u> <u>linkers</u> for treating infection or autoimmune disease)

IT 302-01-2, Hydrazine, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (modification reagent; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating

infection or autoimmune disease)

IT 25322-68-3, Polyethylene glycol

25322-68-3D, PEG, hydrazide, hydrazine and aldehyde

derivs

RL: BSU (Biological study, unclassified); BUU (Biological use,

unclassified); BIOL (Biological study); USES (Uses)

(bispecific <u>antibodies</u> specific to C3b-like receptor and antigen or autoantigen coupled by <u>polyethylene glycol</u> <u>linkers</u> for treating infection or autoimmune disease)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)

L147 ANSWER 10 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:60253 HCAPLUS Full-text

DOCUMENT NUMBER: 140:127195

TITLE: Antibodies specifically bind to

anionic phospholipids and/or aminophospholipids

conjugated with duramycin peptide

for treating viral infections and cancer

INVENTOR(S): Thorpe, Philip E.; Soares, Melina M.; Huang, Xianming;

He, Jin; Ran, Sophia

PATENT ASSIGNEE(S): Board of Regents the University of Texas System, USA

SOURCE: PCT Int. Appl., 378 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 17

PATENT INFORMATION:

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PATENT NO.
                          KIND
                                   DATE
                                           APPLICATION NO. DATE
     _____
                          ----
                                               _____
                                                                        -----
     WO 2004006847
                          A2 20040122
                                              WO 2003-US21925 20030715 <--
     WO 2004006847
                           A3 20050407
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG,
              PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
              TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
              FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
              BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                          A1 20040122 CA 2003-2491310 20030715 <--
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     AU 2003247869
                           A1
                                                                        20030715 <--
                          A1 20040909 US 2003-620850
A2 20050608 EP 2003-764600
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                                                                        20030715 <--
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JP 2005537267 T 20051208 JP 2004-521771 20030715 <--
BR 2003012692 A 20070626 BR 2003-12692 20030715 <--
MX 2005PA00652 A 20050819 MX 2005-PA652 20050114 <--

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      20030715 <---</td>

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      US 2002-396263P
      P 20020715 <---</td>

      WO 2003-US21925
      W 20030715 <---</td>

PRIORITY APPLN. INFO.:
     Entered STN: 26 Jan 2004
ΕD
     Disclosed are surprising discoveries concerning the role of anionic
AΒ
      phospholipids and aminophospholipids in tumor vasculature and in viral entry
      and spread, and compns. and methods for utilizing these findings in the
      treatment of cancer and viral infections. Also disclosed are advantageous
      antibody, immunoconjugate and duramycin-based compns. and combinations that
      bind and inhibit anionic phospholipids and aminophospholipids, for use in the
      safe and effective treatment of cancer, viral infections and related diseases.
     ICM A61K
IC
     15-3 (Immunochemistry)
CC
     Section cross-reference(s): 1, 8, 63
     antibody anionic phospholipid aminophospholipid immunoconjugate
ST
     duramycin cancer viral infection
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
         (A; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin paptide for treating viral infections and cancer)
     CD antigens
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
         (CD106; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
         (IgG1; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
     Antibodies and Immunoglobulins
ΤT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
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DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (IgG3; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (IgG; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
ΙT
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (IgM; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
ΙT
     Exotoxins
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (Pseudomonas; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin peptide for treating viral infections and
        cancer)
ΙT
     Annexins
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (V; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
     Cell adhesion molecules
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (VCAM-1 (vascular cell adhesion mol. 1); antibodies
        specifically bind to anionic phospholipids and/or
        aminophospholipids conjugated with duramycin peptide
        for treating viral infections and cancer)
ΙT
     Phospholipids, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (acidic; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin paptide for treating viral infections and cancer)
     Phospholipids, biological studies
ΤТ
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (amine-containing; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin paptide for treating viral infections and
        cancer)
     Functional groups
ΤT
        (ammonio group; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin peptide for treating viral infections and
        cancer)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
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(Preparation); USES (Uses) (anti-idiotypic; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin pertide for treating viral infections and cancer) ΙT Mitosis (anti-tumor agent; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and ΙT Adenoviridae Affinity Alkylating agents, biological Alphavirus Amino group Angiogenesis inhibitors Animals Anti-AIDS agents Antibiotics Antitumor agents Antiviral agents Arenavirus Arthritis Atherosclerosis Bunyavirus Calicivirus Carboxyl group Chemotherapy Coagulants Color formers Coronavirus Crimean-Congo hemorrhagic fever virus Cytomegalovirus Cytotoxic agents DNA sequences Deltavirus Dengue virus Diagnostic agents Ebola virus Filovirus Flavivirus Genetic vectors Graves' disease Guanarito virus Hantavirus Hendra virus Hepadnaviridae Hepatitis A virus Hepatitis B virus Hepatitis C virus Hepatitis E virus Hepatitis delta virus Herpesviridae Human Human coronavirus Human herpesvirus 2 Human herpesvirus 3 Human herpesvirus 4 Human immunodeficiency virus

Human papillomavirus

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Human parainfluenza virus
Hyperthyroidism
Imaging agents
Immunoradiotherapy
Immunotherapy
Influenza A virus
Influenza B virus
Influenza C virus
Junin virus
Labels
Lassa virus
Lymphocytic choriomeningitis virus
Machupo virus
Marburg virus
Measles virus
Molecular cloning
NMR (nuclear magnetic resonance)
Nipah virus
Orthomyxovirus
Papovaviridae
Paramyxovirus
Phosphate group
Pichinde virus
Picornaviridae
Poxviridae
Protein sequences
Protein sequences
Psoriasis
Radiotherapy
Respiratory syncytial virus
Retroviridae
Rheumatoid arthritis
Rift Valley fever virus
Rotavirus
Rous sarcoma virus
Sabia virus
Semliki Forest virus
Tick-borne encephalitis virus
Togaviridae
Vaccinia virus
Variola virus
Venezuelan equine encephalitis virus
West Nile virus
Western equine encephalitis virus
X-ray
Yellow fever virus
cDNA sequences
   (antibodies specifically bind to anionic
   phospholipids and/or aminophospholipids conjugated with
   duramycin paptide for treating viral infections and cancer)
Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
   (antibodies specifically bind to anionic
   phospholipids and/or aminophospholipids conjugated with
   duramycin paptide for treating viral infections and cancer)
Albumins, biological studies
Amino acids, biological studies
  Antibodies and Immunoglobulins
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ΙT

ΙT

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Carbohydrates, biological studies
     Cardiolipins
     Enzymes, biological studies
     Fusion proteins (chimeric proteins)
       Oligosaccharides, biological studies
       Peptides, biological studies
     Phosphatidic acids
     Phosphatidylethanolamines, biological studies
     Phosphatidylglycerols
     Phosphatidylinositols
     Phosphatidylserines
     Polysaccharides, biological studies
     Proteins
     Radionuclides, biological studies
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
     Anthracyclines
     Cytokines
     Ribosome-inactivating proteins
     Steroids, biological studies
       Toxins
     Tumor necrosis factors
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
     Cytotoxic agents
ΙT
        (antimetabolites; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin peptide for treating viral infections and
        cancer)
     DNA replication
ΤТ
        (antitumor agent; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin peptide for treating viral infections and
        cancer)
    Health products
ΙT
        (biologicals; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin peptide for treating viral infections and
        cancer)
ΤT
     Antibodies and Immunoglobulins
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin pertide for treating viral infections and
        cancer)
ΙT
     Drug delivery systems
        (carriers; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
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(chimeric; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer) Linking agents ΙT (cleavable; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin partide for treating viral infections and cancer) ΙT Avidins RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugates; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer) Polyoxyalkylenes, biological studies ΙT RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugates; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin paptide for treating viral infections and cancer) Eye, disease ΤT (diabetic retinopathy; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer) ΙT Toxins RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (diphtheria; antibodies specifically bind to anionic phospholipids and/or aminophospholipids ជាស្មាំមនុស្ស with duramycin paptide for treating viral infections and cancer) ΙT Blood vessel (endothelium; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer) ΙT Pseudomonas (exotoxin; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer) ITAntibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (fragments; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer) ΙT Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (heavy chain, variable; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer) Blood vessel, neoplasm ΙT (hemangioma; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated

with duramycin partide for treating viral infections and cancer)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(humanized; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Drug delivery systems

(immunoconjugates; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Drug delivery systems

(immunotoxins; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Apoptosis

(inducers; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Tubulins

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibiting drugs; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Angiogenesis

(inhibition; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(light chain, variable; antibodies specifically bind
to anionic phospholipids and/or aminophospholipids conjugated
with duramycin peptide for treating viral infections and
cancer)

IT Drug delivery systems

(liposomes; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Eye, disease

(macula, degeneration; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin partide for treating viral infections and cancer)

IT Eye, disease

(macula, senile degeneration; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL

(Biological study); PREP (Preparation); USES (Uses)
(monoclonal; antibodies specifically bind to
anionic phospholipids and/or aminophospholipids conjugated
with duramycin peptide for treating viral infections and
cancer)

IT Glaucoma (disease)

(neovascular; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Drug delivery systems

(parenterals; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Hydroxyl group

(phenolic; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Alcohols, biological studies

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (polymers; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Drug delivery systems

(prodrugs; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Serratia

(protease; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT DNA

Proteins

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (recombinant; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Chromosome

(segregation; antitumor agent; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Functional groups

(sulfate; <u>antibodies</u> specifically <u>bind</u> to anionic phospholipids and/or aminophospholipids <u>conjugated</u> with duramycin <u>peptide</u> for treating viral infections and cancer)

IT Functional groups

(sulfonate group; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Embryophyta

Eubacteria

Fungi

Plants

(toxin; antibodies specifically bind to

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anionic phospholipids and/or aminophospholipids conjugated
        with duramycin peptide for treating viral infections and
        cancer)
ΤТ
    Tumor markers
        (tumor vessel; antibodies specifically bind to
        anionic phospholipids and/or aminophospholipids conjugated
        with duramycin peptide for treating viral infections and
        cancer)
     Imaging
ΙT
        (tumor; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
       duramycin peptide for treating viral infections and cancer)
ΙT
     Endothelium
        (vascular; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
       duramycin peptide for treating viral infections and cancer)
ΙT
     Alkaloids, biological studies
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (vinca; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
ΙT
        (viral; antibodies specifically bind to anionic
       phospholipids and/or aminophospholipids conjugated with
       duramycin pertide for treating viral infections and cancer)
     Interferons
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (γ; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
     9001-92-7D, Protease, conjugates
ΙT
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (Serratia; antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
       duramycin peptide for treating viral infections and cancer)
     650663-91-5
ΙT
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (amino acid sequence; antibodies specifically bind
        to anionic phospholipids and/or aminophospholipids conjugated
       with duramycin peptide for treating viral infections and
        cancer)
ΙT
     650591-59-6DP, conjugates
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (antibodies specifically bind to anionic
        phospholipids and/or aminophospholipids conjugated with
        duramycin peptide for treating viral infections and cancer)
                                   9001-67-6D, Neuraminidase,
ΙT
     58-85-5D, Biotin, conjugates
                 9001-78-9D, Alkaline phosphatase, conjugates
     conjugates
     9001-99-4D, Ribonuclease, conjugates 9004-08-4D, Cathepsin,
     conjugates 9014-01-1D, Subtilisin, conjugates
     9014-06-6D, Penicillin amidase, conjugates 9016-17-5D,
     Arylsulfatase, conjugates 9025-05-2D, Cytosine deaminase,
     conjugates
                  9031-11-2D, \beta-Galactosidase, conjugates
     9031-98-5D, Carboxypeptidase, conjugates
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\beta-Lactamase, conjugates 9073-78-3D, Thermolysin,
conjugates 9077-67-2D, conjugates 10043-66-0D,
Iodine-131, conjugates, biological studies 10098-91-6D,
Yttrium-90, conjugates, biological studies 13981-51-6D,
Mercury-197, conjugates, biological studies 13982-78-0D,
Mercury-203, conjugates, biological studies 14119-09-6D,
Gallium-67, conjugates, biological studies 14158-31-7D,
Iodine-125, conjugates, biological studies 14280-50-3D, Lead
ion(2+), conjugates, biological studies 14378-26-8D,
Rhenium-188, conjugates, biological studies 14701-22-5D,
Nickel (II), conjugates, biological studies 14885-78-0D,
Indium-113, conjugates, biological studies 14913-52-1D,
Neodymium ion(3+), conjugates, biological studies 14998-63-1D,
Rhenium-186, conjugates, biological studies 15121-26-3D,
Vanadium ion(2+), conjugates, biological studies 15158-11-9D,
Copper (II), conjugates, biological studies 15438-31-0D,
conjugates, biological studies 15715-08-9D, Iodine-123,
conjugates, biological studies 15750-15-9D, Indium-111,
conjugates, biological studies 15757-14-9D, Gallium-68,
conjugates, biological studies 15757-86-5D, Copper-67,
conjugates, biological studies 16065-83-1D, Chromium (III),
conjugates, biological studies 16065-91-1D, Gold (III),
conjugates, biological studies 16096-89-2D, Lanthanum (III), conjugates, biological studies 16397-91-4D, Manganese (II), conjugates, biological studies 18472-30-5D, Erbium ion(3+),
conjugates, biological studies 18923-27-8D, Ytterbium ion(3+),
conjugates, biological studies 20074-52-6D, conjugates
, biological studies 22438-27-3D, Rubidium-103, conjugates,
biological studies 22453-63-0D, Rubidium-97, conjugates,
biological studies 22541-17-9D, Samarium ion(3+), conjugates, biological studies 22541-19-1D, Gadolinium (III), conjugates, biological studies 22541-20-4D, conjugates, biological studies
22541-21-5D, Dysprosium ion(3+), conjugates, biological studies
22541-22-6D, Holmium ion(3+), conjugates, biological studies
22541-53-3D, conjugates, biological studies 23713-46-4D,
Bismuth ion(3+), conjugates, biological studies
                                                       378784-45-3D,
Technetium-99m, conjugates, biological studies
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
   (antibodies specifically bind to anionic
   phospholipids and/or aminophospholipids conjugated with
  duramycin peptide for treating viral infections and cancer)
50-07-7D, Mitomycin C, conjugates 50-18-0D, Cyclophosphamide,
conjugates 50-76-0D, Actinomycin D, conjugates
51-21-8D, 5-Fluorouracil, conjugates 52-53-9D, Verapamil,
conjugates 54-42-2D, Idoxuridine, conjugates
54-62-6D, Aminopterin, conjugates 57-22-7D, Vincristine,
conjugates 59-05-2D, Methotrexate, conjugates
64-86-8D, Colchicine, conjugates 67-99-2, Aspergillin
70-00-8D, Trifluorothymidine, conjugates 127-07-1D,
Hydroxyurea, conjugates 147-94-4D, Cytosine arabinoside,
conjugates 148-82-3D, Melphalan, conjugates 305-03-3D, Chlorambucil, conjugates 477-30-5D, Demecolcine,
conjugates 768-94-5D, Amantadine, conjugates
865-21-4D, Vinblastine, conjugates 961-07-9D, Deoxyguanosine,
conjugates 1391-36-2D, Duramycin, conjugates
1406-72-0, Restrictocin 1407-48-3, \alpha-Sarcin conjugates 3056-17-5D, Stavudine, conjugates
                                                     2056-98-6D,
4375-07-9, Epipodophyllotoxin 4428-95-9D, Foscarnet, conjugates
5536-17-4D, Vidarabine, conjugates 7481-89-2D, Zalcitabine,
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ΙT

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7689-03-4D, Camptothecin, conjugates
conjugates
9001-29-0D, Factor X, conjugates 9013-20-1D, Streptavidin,
conjugates 9035-58-9D, Blood-coagulation factor III,
           10540-29-1D, Tamoxifen, conjugates
conjugates
11056-06-7D, Bleomycin, conjugates
                                     13392-28-4D, Rimantadine,
conjugates 15663-27-1D, Cisplatin, conjugates
18378-89-7D, Mithramycin, conjugates
                                     20830-81-3D,
Daunorubicin, conjugates 23214-92-8D, Doxorubicin,
conjugates 25322-68-3D, Polyethylene
glycol, conjugates 30516-87-1D, AZT,
           33069-62-4D, Taxol, conjugates
conjugates
33419-42-0D, Etoposide, conjugates 36791-04-5D, Ribavirin,
conjugates 39809-25-1D, Penciclovir, conjugates 53643-48-4D, Vindesine, conjugates 59277-89-3D,
                                   59277-89-3D, Acyclovir,
conjugates 69655-05-6D, Didanosine, conjugates
75037-46-6, Gelonin 77181-69-2D, Sorivudine, conjugates
82410-32-0D, Ganciclovir, conjugates 82855-09-2D,
Combretastatin, conjugates 106941-25-7D, Adefovir,
                            113852-37-2D, Cidofovir,
diphosphates and conjugates
conjugates 114977-28-5D, Docetaxel, conjugates
120082-86-2D, conjugates 127759-89-1D, Lobucavir,
triphosphates and conjugates 127779-20-8D, Saquinavir,
           129618-40-2D, Nevirapine, conjugates
conjugates
134678-17-4D, Lamivudine, conjugates 136470-78-5D, Abacavir,
conjugates 136817-59-9D, Delavirdine, conjugates
139110-80-8D, Zanamivir, conjugates 142340-99-6D, Adefovir
                      143188-53-8D, Lamivudine triphosphate,
dipivoxil, conjugates
conjugates
            145819-92-7D, Emtricitabine triphosphate,
           150378-17-9D, Indinavir, conjugates
conjugates
154598-52-4D, Efavirenz, conjugates
                                    155213-67-5D, Ritonavir,
conjugates 157885-16-0D, Neutravidin, conjugates
159989-64-7D, Nelfinavir, conjugates 161814-49-9D, Amprenavir,
conjugates 196618-13-0D, Oseltamivir, conjugates
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
   (antibodies specifically bind to anionic
  phospholipids and/or aminophospholipids conjugated with
  duramycin peptide for treating viral infections and cancer)
9068-38-6D, Reverse transcriptase, conjugates
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
   (inhibitors; Multinucleoside resistance A and Multinucleoside
  resistance B; antibodies specifically bind to
   anionic phospholipids and/or aminophospholipids conjugated
  with duramycin pertide for treating viral infections and
   cancer)
650663-90-4
             650663-92-6
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
   (nucleotide sequence; antibodies specifically bind
   to anionic phospholipids and/or aminophospholipids conjugated
  with duramycin peptide for treating viral infections and
   cancer)
650591-60-9
             650670-60-3
                          650670-61-4
RL: PRP (Properties)
   (unclaimed sequence; antibodies specifically bind
   to anionic phospholipids and/or aminophospholipids conjugated
  with duramycin peptide for treating viral infections and
   cancer)
25322-68-3D, Polyethylene glycol,
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ΙT

ΙT

ΙT

ΙT

conjugates

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

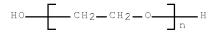
(antibodies specifically bind to anionic

phospholipids and/or aminophospholipids conjugated with

duramycin peptide for treating viral infections and cancer)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 11 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:20534 HCAPLUS Full-text

DOCUMENT NUMBER: 140:92584

TITLE: Methods for therapeutic treatment utilizing

sub-clinical amount of a therapeutic agent combined

with or conjugated to an antibody,

or fragment thereof

INVENTOR(S): Lazarovits, Janette; Nimrod, Abraham; Hoch-Mar-Chaim,

Hagit; Levanon, Avigdor

PATENT ASSIGNEE(S): Savient Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA: | TENT | NO. | | | KIND DA | | | | APPL] | | | ICATION NO. | | | | DATE | | | |
|-------|---------------------|-------------|-------------|-------------|-------------|-------------|-----------------|------|-------|-----------------|------|-------------|------------|------------|--------------|------|-----|--|--|
| - | 2004 | | | | A1 20040108 | | | , | WO 2 | 003- | US20 | 604 | 20030630 < | | | | | | |
| WO | 2004 | 0025 | 28 | | A9 | A9 20041118 | | | | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | ВG, | BR, | BY, | BZ, | CA, | CH, | CN, | | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FΙ, | GB, | GD, | GE, | GH, | | |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | KP, | KR, | KΖ, | LC, | LK, | LR, | | |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | OM, | PG, | | |
| | | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | ТJ, | TM, | TN, | TR, | | |
| | | TT, | TZ, | UA, | UG, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | | | |
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| | | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | | |
| | | FI, | FR, | GB, | GR, | HU, | ΙE, | IT, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR, | | |
| | | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | TG | | |
| CA | 2491427 | | | A1 20040108 | | | CA 2003-2491427 | | | | | | 20030630 < | | | | | | |
| AU | 2003 | A1 20040119 | | | | | AU 2 | 003- | 2796 | 20030630 < | | | | | | | | | |
| EP | 1551 | | A1 20050713 | | | | | EP 2 | 003- | 7423 | 38 | 20030630 < | | | | | | | |
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| CN | CN 1678348 | | | | Α | A 20051005 | | | | CN 2 | 003- | 8204 | 41 | 20030630 < | | | | | |
| JP | JP 2005534679 | | | | | | T 20051117 | | | JP 2004-518133 | | | | | 20030630 < | | | | |
| BR | BR 2003012484 | | | | | | A 20080108 | | | BR 2003-12484 | | | | | 20030630 < | | | | |
| MX | MX 2005PA00271 | | | | | | 20050331 | | | MX 2005-PA271 | | | | | 20050103 < | | | | |
| IORIT | ORITY APPLN. INFO.: | | | | | | | | | US 2002-189025 | | | | | A 20020701 < | | | | |
| | | | | | | | | | | WO 2003-US20604 | | | | | W 20030630 < | | | | |

ED Entered STN: 11 Jan 2004

- AΒ The present invention relates to compns. utilizing an agent and an antibody, or fragment thereof. In these compns., the agents, including agents such as anti-cancer, anti-metastasis, anti-leukemia, anti-disease, anti-adhesion, anti-thrombosis, anti-restenosis, anti-autoimmune, anti-aggregation, antibacterial, anti-viral, and anti-inflammatory agents, can be complexed or combined with or conjugated to the antibodies, or fragments thereof. In addition, the agent and/or the antibody, or fragment thereof, can be present in the composition in a sub-clin. amount, which is an amount that is less than the amount of the agent generally found to be clin. effective when the agent is administered alone. Preferably, in these compns. of the present invention, the agent is an anthracycline or a derivative thereof, e.g., doxorubicin (adriamycin) or a derivative thereof. The antibodies or fragments are capable of binding to, e.g. PSGL-1, fibrinogen γ' , GP1b α , heparin, lumican, complement C4 inter- α inhibitor and prothrombin. Antibodies were identified by screening a human antibody phage display library, which has diversity only in the heavy chain CDR3 regions. Specific examples of antibodies disclosed in these applications include the Y1 and Y17 scFv antibody fragments that bind glycocalicin mols. on platelets. In addition, the L32 and L31 scFv antibody fragments were disclosed that bind leukemic cells.
- IC ICM A61K039-395

ICS A61K051-00; A61K038-00; A61K039-00

CC 15-3 (Immunochemistry)

Section cross-reference(s): 1, 3, 8, 63

- ST human <u>antibody</u> fragment phage display library sequence; platelet <u>antibody</u> thrombosis anticoagulant; anticancer cancer diagnosis <u>antibody</u> leukemia
- IT Glycoproteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (GPIb, α , antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

IT Glycoproteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (PSGL-1 (P-selectin glycoprotein ligand-1), antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

IT Amino acids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (acidic, epitope comprising; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

IT Platelet (blood)

(adhesion, inhibition; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or <u>conjugated</u> to <u>antibody</u>, or fragment thereof)

IT Antibodies and Immunoglobulins

RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(<u>complexes</u>; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or <u>conjugated</u> to <u>antibody</u>, or fragment thereof)

IT Epitopes

(comprising acidic amino acids and sulfated tyrosine residue; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

IT Antibodies and Immunoglobulins

RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL

(Biological study); USES (Uses) (conjugates; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) ΙT Drug delivery systems (dextran, lipophilic polymers, hydrophilic polymers, HPMA; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) Polyoxyalkylenes, biological studies ΙT RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug delivery using; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) ΙT Toxins RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (endotoxins, Pseudomonas, PE40, PE38,; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) Antibodies and Immunoglobulins RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (fragments, scFv or Fab; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) ΙT Glycoproteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (glycocalicins, platelet, antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) ΙT Cell proliferation (inhibition, tumor; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) Adhesion, biological ΤТ Cell aggregation Platelet aggregation (inhibition; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) ΙT Drug delivery systems (liposomes, doxorubicin-decorated; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) Proteoglycans, biological studies ΙT RL: BSU (Biological study, unclassified); BIOL (Biological study) (lumicans, antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) ΙT Neoplasm (metastasis; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof) ΙT Acute myeloid leukemia Anti-inflammatory agents Antibacterial agents Anticoagulants

Antitumor agents Antiviral agents

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Autoimmune disease
     B-cell leukemia
     Chemotherapy
     Chronic B-cell leukemia
     Human
     Immunotherapy
     Inflammation
     Leukemia
     Molecular cloning
     Multiple myeloma
     Neoplasm
     Phage display library
     Platelet (blood)
     Platelet aggregation inhibitors
     Radiotherapy
     Thrombolytics
     Thrombosis
        (methods for therapeutic treatment utilizing sub-clin. amount of
        therapeutic agent combined with or conjugated to
        antibody, or fragment thereof)
ΙT
     Antibodies and Immunoglobulins
     RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (methods for therapeutic treatment utilizing sub-clin. amount of
        therapeutic agent combined with or conjugated to
        antibody, or fragment thereof)
     Anthracyclines
ΙT
     Radionuclides, biological studies
       Ricins
       Toxins
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (methods for therapeutic treatment utilizing sub-clin. amount of
        therapeutic agent combined with or conjugated to
        antibody, or fragment thereof)
ΤТ
     Protein sequences
        (of antibody fragments; methods for therapeutic treatment
        utilizing sub-clin. amount of therapeutic agent combined with or
        conjugated to antibody, or fragment thereof)
     Artery, disease
TΤ
        (restenosis; methods for therapeutic treatment utilizing sub-clin. amount
        of therapeutic agent combined with or conjugated to
        antibody, or fragment thereof)
ΤT
     Cell death
        (tumor, induction; methods for therapeutic treatment utilizing
        sub-clin. amount of therapeutic agent combined with or conjugated
        to antibody, or fragment thereof)
ΙT
     Interferons
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (\alpha; methods for therapeutic treatment utilizing sub-clin. amount of
        therapeutic agent combined with or conjugated to
        antibody, or fragment thereof)
ΙT
     Fibrinogens
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (\gamma chain, \gamma', antibody against; methods for
        therapeutic treatment utilizing sub-clin. amount of therapeutic agent
        combined with or conjugated to antibody, or
        fragment thereof)
ΙT
     23214-92-8, Doxorubicin
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (-decorated liposome; methods for therapeutic treatment utilizing
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sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

ΙT 147-94-4, Cytarabine

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Ara-C; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

9041-08-1, Heparin sodium ΤТ

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Reviparin, Dalteparin; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

212783-20-5 212783-31-8 268723-76-8 442527-61-9 642928-14-1 ΙT RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (amino acid sequence, antibody fragment; methods for

therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or

fragment thereof)

645004-07-5 645004-08-6 645004-09-7 ΙT

RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amino acid sequence; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

9001-26-7, Prothrombin 9005-49-6, Heparin, biological studies ΙT 39346-44-6, Inter- α .-trypsin inhibitor 80295-48-3, Complement C4 RL: BSU (Biological study, unclassified); BIOL (Biological study) (antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

ΙT 9004-54-0, Dextran, biological studies 25322-68-3,

Folyethylene glycol

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug delivery using; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

60-18-4D, Tyrosine, sulfated ΙT

> RL: BSU (Biological study, unclassified); BIOL (Biological study) (epitope comprising; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

50-18-0, Cyclophosphamide 50-35-1, Thalidomide 50-78-2, Aspirin ΙT 53-03-2, Prednisone 53-86-1, Indomethacin 57-22-7, Vincristine 127-07-1, Hydroxyurea 305-03-3, Chlorambucil 7440-15-5D, Rhenium, isotopes, biological studies 7440-63-3D, Xenon, isotope of mass 33, 9004-61-9, Hyaluronic acid 10043-66-0, Iodine-131, biological studies biological studies 10098-91-6, Yttrium-90, biological studies 11056-06-7, Bleomycin 13968-53-1, Ruthenium-103, biological studies 13981-56-1, Fluorine-18, biological studies 13982-78-0, Mercury-203, 14041-48-6, Thulium-165, biological studies biological studies 14119-09-6, Gallium-67, biological studies 14133-76-7, Technetium-99, biological studies 14158-32-8, Iodine-126, biological studies 14331-95-4, Ruthenium-105, biological studies 14390-71-7, Tellurium-122, biological studies 14390-73-9, Tellurium-125, biological studies 14391-22-1, Thulium-167, biological studies 14834-67-4, Iodine-133, biological studies 14885-78-0, Indium 113, biological studies 14900-13-1, Thulium-168, biological studies 15307-86-5, Diclofenac 15663-27-1, cis-Platinum 15678-91-8, Krypton-81, biological studies 15687-27-1, Ibuprofen 15715-08-9, Iodine-123, biological studies

15750-15-9, Indium 111, biological studies 15756-62-4, Ruthenium-95, biological studies 15757-14-9, Gallium-68, biological studies 15758-35-7, Ruthenium-97, biological studies 15765-39-6, Bromine-77, biological studies 15776-20-2, Bismuth-213, biological studies 20830-81-3, Daunorubicin 21679-14-1, Fludarabine 22204-53-1, Naproxen 30516-87-1, Zidovudine 33069-62-4, Taxol 38194-50-2, Sulindac 51146-56-6, Dexibuprofen 51803-78-2, Nimesulide 52549-17-4, Pranoprofen 58957-92-9, Idarubicin 59277-89-3, Acyclovir Cilostazol 74397-12-9, Limaprost 74711-43-6, Zaltoprofen 75037-46-6D, Gelonin, derivs. 75706-12-6, Leflunomide 79867-78-0, Morpholinodaunorubicin 80790-68-7, Morpholinodoxorubicin 82410-32-0, Ganciclovir 83712-60-1, Defibrotide 85622-93-1, Temozolomide 87344-06-7 90101-16-9, Droxicam 108852-90-0, Methoxymorpholinyldoxorubicin 113440-58-7, Calicheamicin 162011-90-7. Rofecoxib 169590-42-5, Celecoxib 173146-27-5, Denileukin diftitox 262423-20-1, Subreum 425603-01-6, WinRho SDF 640734-07-2, Clorcromene RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

IT 485815-21-2

RL: PRP (Properties)

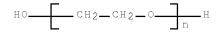
(unclaimed sequence; methods for therapeutic treatment utilizing sub-clin. amount of a therapeutic agent combined with or conjugated to an antibody, or fragment thereof)

IT 25322-68-3, Polyethylene glycol

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug delivery using; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 12 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:931486 HCAPLUS Full-text

DOCUMENT NUMBER: 140:1655

TITLE: Sequences of Scytonema varium scytovirins and related

conjugates, fusion proteins, vectors, host cells, compositions, antibodies and methods

of using scytovirins

INVENTOR(S): Boyd, Michael R.; Bokesch, Heidi R.; O'Keefe, Barry

R.; McKee, Tawnya C.

PATENT ASSIGNEE(S): The Government of the United States of America,

Represented by the Secretary Dept. of Health and Human

Services, USA

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
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                              DATE
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                                                               DATE
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                                         WO 2003-US15991
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                               20031127
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    WO 2003097814
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                              20040701
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                       A1 20050421 US 2004-513961 20041220 <--
    US 20050084496
                                          US 2002-381322P P 20020516 <--

WO 2003-US15991 W 20030515 <--
PRIORITY APPLN. INFO.:
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- ED Entered STN: 28 Nov 2003
- The present invention provides sequences of scytovirins isolated from AΒ Scytonema varium and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins. Specifically, the invention relates to the isolated or purified antiviral protein consisting essentially of the amino acid sequence of SEO ID NO: 1, or an antiviral fragment, a variant, fusion protein or conjugate thereof; a composition comprising (i) at least one of the foregoing and (ii) a carrier, excipient or adjuvant; an isolated or purified nucleic acid encoding the amino acid sequence of the antiviral protein or antiviral fragment thereof, or a variant or fusion protein of either of the foregoing; an isolated cell comprising an above-described isolated or purified nucleic acid; a composition comprising (i) an above-described isolated or purified nucleic acid, and (ii) a carrier, excipient or adjuvant. The invention further relates to a method of inhibiting a viral infection of a host, inhibiting a virus in a biol. sample or in/on an inanimate object, comprising administering a viral infectioninhibiting amount of atomic least one of an above-described antiviral protein or an antiviral fragment thereof, a variant or fusion protein of either of the foregoing, an above-described nucleic acid; and a method of inhibiting infection of a mammal with a virus comprising administering to the mammal an anti-scytovirin antibody to induce an immune response.
- IC ICM C12N
- CC 3-3 (Biochemical Genetics)
 - Section cross-reference(s): 1, 6, 10
- ST sequence scytonema scytovirin conjugate fusion protein vector antibody antiviral
- IT Immunostimulants

(adjuvants; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)

IT Proteins

RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antiviral; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns.,

10/565,331 antibodies and methods of using scytovirins) ΙT Drug delivery systems (carriers; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) ΙT Proteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (coat; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) Fusion proteins (chimeric proteins) ΙT RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (comprising scytovirin; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) ΙT Genetic vectors (encoding scytovirin; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) Albumins, biological studies ΤТ RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (fusion protein comprising; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) Glycoproteins ΙT RL: BSU (Biological study, unclassified); BIOL (Biological study) (gp120; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) Oligosaccharides, biological studies ΙT RL: BSU (Biological study, unclassified); BIOL (Biological study) (mannose; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) TТ Proteins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (scytovirin; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins) Antiviral agents ΤТ Blood Body fluid Eubacteria Human Human immunodeficiency virus Immunostimulants Lactobacillus Mammalia Protein sequences Scytonema varium Sperm

(sequences of Scytonema varium scytovirins and related

Vaccines Yeast

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conjugates, fusion proteins, vectors, host cells, compns.,
        antibodies and methods of using scytovirins)
ΙT
     Glycoproteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (sequences of Scytonema varium scytovirins and related
        conjugates, fusion proteins, vectors, host cells, compns.,
        antibodies and methods of using scytovirins)
ΙT
     Polyoxyalkylenes, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (sequences of Scytonema varium scytovirins and related
        conjugates, fusion proteins, vectors, host cells, compns.,
        antibodies and methods of using scytovirins)
ΙT
     Toxins
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (sequences of Scytonema varium scytovirins and related
        conjugates, fusion proteins, vectors, host cells, compns.,
        antibodies and methods of using scytovirins)
ΙT
    Matrix media
        (solid support; sequences of Scytonema varium scytovirins and related
        conjugates, fusion proteins, vectors, host cells, compns.,
        antibodies and methods of using scytovirins)
     Antibodies and Immunoglobulins
ΙT
     RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST
     (Analytical study); BIOL (Biological study); USES (Uses)
        (specific for scytovirin; sequences of Scytonema varium scytovirins and
        related conjugates, fusion proteins, vectors, host cells,
        compns., antibodies and methods of using scytovirins)
ΙT
     Infection
        (viral, treatment of; sequences of Scytonema varium scytovirins and
        related conjugates, fusion proteins, vectors, host cells,
        compns., antibodies and methods of using scytovirins)
ΙT
     627563-68-2P, Scytovirin (Scytonema varium)
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (amino acid sequence; sequences of Scytonema varium scytovirins and
        related conjugates, fusion proteins, vectors, host cells,
        compns., antibodies and methods of using scytovirins)
     3458-28-4, Mannose
ΙT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (oligosaccharide; sequences of Scytonema varium scytovirins
        and related conjugates, fusion proteins, vectors, host cells,
        compns., antibodies and methods of using scytovirins)
ΤT
     9004-54-0, Dextran, biological studies 25322-68-3,
     Polyethylene glycol
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (sequences of Scytonema varium scytovirins and related
        conjugates, fusion proteins, vectors, host cells, compns.,
        antibodies and methods of using scytovirins)
     627564-57-2 627564-58-3
                                627564-59-4 627564-60-7 627583-17-9
ΤТ
     RL: PRP (Properties)
        (unclaimed protein sequence; sequences of Scytonema varium scytovirins
        and related conjugates, fusion proteins, vectors, host cells,
        compns., antibodies and methods of using scytovirins)
     627528-44-3
ΙT
     RL: PRP (Properties)
        (unclaimed sequence; sequences of Scytonema varium scytovirins and
```

related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)

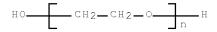
IT 25322-68-3, Polyethylene glycol

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(sequences of Scytonema varium scytovirins and related <u>conjugates</u>, fusion proteins, vectors, host cells, compns., <u>antibodies</u> and methods of using scytovirins)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 13 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:697050 HCAPLUS Full-text

DOCUMENT NUMBER: 139:229263

TITLE: Anti-CCR5 antibody and conjugates

for treating HIV-1 infection

INVENTOR(S): Olson, William C.; Maddon, Paul. J. PATENT ASSIGNEE(S): Progenics Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 124 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA: | | KIND DATE | | | | | _ | | | | | | | | | | | |
|-------|----------------|-----------|-----|-------------|-------------|----------|-------------|----------------|----------------|-----------------|------|------|-----|------------|------------|------|-----|---|
| | | | | A1 20030904 | | | | | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | AΖ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, | LK, | LR, | |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | OM, | PH, | |
| | | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | ΤJ, | TM, | TN, | TR, | TT, | TZ, | |
| | | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | | | |
| | RW: | GH, | GM, | KΕ, | LS, | MW, | ${ m MZ}$, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, | |
| | | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | |
| | | FI, | FR, | GB, | GR, | HU, | IE, | ΙΤ, | LU, | MC, | NL, | PT, | SE, | SI, | SK, | TR, | BF, | |
| | | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | ΤG | | |
| | CA 2476901 | | | | | | | | | CA 2003-2476901 | | | | | | | | |
| AU | AU 2003217674 | | | | | | | | AU 2003-217674 | | | | | | | | | |
| EP | 1478738 | | | | A1 20041124 | | | EP 2003-713632 | | | | | | | | | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙΤ, | LI, | LU, | NL, | SE, | MC, | PT, | |
| | | , | , | , | , | , | RO, | , | , | , | , | , | , | • | , | | | |
| JP | JP 2006508631 | | | | | | | | | | | | | 20030221 < | | | | |
| | CN 1780907 | | | | | | | | | | | | | 20030221 < | | | | |
| | NZ 534947 | | | | | | | | NZ 2003-534947 | | | | | | | | | |
| _ | RU 2322454 | | | | | | | | | | | | | 20030221 < | | | | |
| | MX 2004PA08153 | | | | | 20050705 | | | | | | | | | | | | |
| | ZA 2004006765 | | | | | 20060628 | | | | | | | | | 20040825 < | | | |
| | NO 2004003971 | | | | | 20041116 | | | | | | | | | 20040922 < | | | |
| IORIT | Y APP | INFO | .: | | | | | | US 2 | | | - | ' | A1 2 | | | | |
| | | | | | | | | | | WO 2 | 003- | US55 | 00 | | W 2 | 0030 | 221 | < |

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ΕD
     Entered STN: 05 Sep 2003
AΒ
     The invention is directed an anti-CCR5 antibody which comprises (i) two light
     chains, each light chain comprising the expression product of a plasmid
     designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two
     heavy chains, each heavy chain comprising an expression product of either a
     plasmid designated pVg1:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or
     a plasmid designated pVg1:HuPR0140 (mutB+D+I)-VH (ATCC Deposit Designation
     PTA-4099) or a fragment thereof which binds to CCR5 on the surface of a human
     cell.
IC
     ICM C12N005-06
CC
     15-3 (Immunochemistry)
     Section cross-reference(s): 1, 3, 8, 9, 63
ST
     CCR5 antibody light heavy chain conjugate HIV1 human
     cell
    Chemokine receptors
ΤT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (CCR5; humanized anti-CCR5 antibody and conjugates
        for inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
    Animal cell line
ΙT
        (CHO; humanized anti-CCR5 antibody and conjugates
        for inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
     Animal cell line
TΤ
        (COS; humanized anti-CCR5 antibody and conjugates
        for inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
     Antibodies and Immunoglobulins
IT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (IgG1; humanized anti-CCR5 antibody and conjugates
        for inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
     Polysaccharides, biological studies
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (branched and unbranched; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
ΙT
     Drug delivery systems
        (carriers; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (fragments; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
     Antibodies and Immunoglobulins
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (fusion products; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
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ΙT

Glycoproteins

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RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (gp120; humanized anti-CCR5 antibody and conjugates
        for inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
ΙT
    Blood serum
        (half life or clearance rate; humanized anti-CCR5 antibody
        and conjugates for inhibiting gp120-CD4 binding and
        for treating HIV-1 infection)
     Antibodies and Immunoglobulins
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (heavy chain; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
    Animal cell
ΙT
        (human; humanized anti-CCR5 antibody and conjugates
        for inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
    Antiviral agents
ΙT
     Biomarkers
     CD4-positive T cell
     Cytotoxic agents
     DNA sequences
     Genetic vectors
     Human
     Human immunodeficiency virus 1
     Labels
     Molecular cloning
    Multiple myeloma
     Protein sequences
        (humanized anti-CCR5 antibody and conjugates for
        inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
     Antibodies and Immunoglobulins
ΤТ
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (humanized anti-CCR5 antibody and conjugates for
        inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
ΙT
    Chemokines
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (humanized anti-CCR5 antibody and conjugates for
        inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
ΙT
    Alditols
    CD4 (antigen)
     DNA
     Nucleic acids
     Polymers, biological studies
       Polyoxyalkylenes, biological studies
     Radionuclides, biological studies
       Toxins
     cDNA
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (humanized anti-CCR5 antibody and conjugates for
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inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (humanized; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Drug delivery systems (immunoconjugates; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) Drug delivery systems TT (immunotoxins; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Drug delivery systems (injections, i.m.; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Drug delivery systems (injections, i.v.; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Drug delivery systems (injections, s.c.; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (light chain; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) Animal cell ΤТ (mammalian; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Epitopes (mapping; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) Fluorescent substances TΤ (marker; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) ΙT Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (monoclonal; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection) Plasmids ΙT (pVg1:HuPRO140 (mut B+D+I)-VH; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and

for treating HIV-1 infection)

Plasmids

ΙT

```
(pVg1:HuPRO140 HG2-VH; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
ΙT
    Plasmids
        (pVκ:HuPRO140-Vκ; humanized anti-CCR5 antibody
        and conjugates for inhibiting gp120-CD4 binding and
        for treating HIV-1 infection)
     Drug delivery systems
ΙT
        (polymer-bound; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
ΙT
     9003-01-4D, crosslinked, derivs
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (Carbomer; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
     592568-86-0P 592568-87-1P
                                   592568-88-2P
ΙT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (amino acid sequence; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
     9002-89-5D, Poly(vinyl alcohol), derivs.
                                                9005-49-6D, Heparin, polymers
ΤТ
     25087-26-7D, Polymethacrylic acid, derivs. 25322-68-3,
     Polyethylene glycol
                          70226-44-7D, Heparan, polymers
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (humanized anti-CCR5 antibody and conjugates for
        inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
ΙT
     592568-83-7P
                    592568-84-8P
                                   592568-85-9P
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (nucleotide sequence; humanized anti-CCR5 antibody and
        conjugates for inhibiting gp120-CD4 binding and for
        treating HIV-1 infection)
     592572-05-9, 7: PN: W003072766 SEQID: 7 unclaimed DNA 592572-06-0
ΙT
     592572-07-1
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; anti-CCR5 antibody and
        conjugates for treating HIV-1 infection)
     200803-28-7 200803-29-8 228120-60-3
ΙT
     RL: PRP (Properties)
        (unclaimed sequence; anti-CCR5 antibody and
        conjugates for treating HIV-1 infection)
     25322-68-3, Polyethylene glycol
ΙT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (humanized anti-CCR5 antibody and conjugates for
        inhibiting gp120-CD4 binding and for treating HIV-1
        infection)
     25322-68-3 HCAPLUS
RN
CN
    Poly(oxy-1,2-ethanediyl), \alpha-hydro-\omega-hydroxy- (CA INDEX NAME)
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HO CH2 CH2 O n
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REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L147 ANSWER 14 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:435926 HCAPLUS Full-text DOCUMENT NUMBER: 139:133828 TITLE: Synthesis of S-Linked Glycopeptides in Aqueous Solution Zhu, Xiangming; Pachamuthu, Kandasamy; Schmidt, AUTHOR(S): Richard R. CORPORATE SOURCE: Fachbereich Chemie, Universitaet Konstanz, Konstanz, D-78457, Germany Journal of Organic Chemistry (2003), 68(14), SOURCE: 5641-5651 CODEN: JOCEAH; ISSN: 0022-3263 PUBLISHER: American Chemical Society DOCUMENT TYPE: Journal English LANGUAGE: OTHER SOURCE(S): CASREACT 139:133828 ΕD Entered STN: 08 Jun 2003 AR Direct S-glycosylation of homocysteine- and cysteine-containing paptides with O-acetyl protected glycosyl halides performed under two-phase conditions in the presence of sodium carbonate as base gave excellent results. Glucosyl bromide, galactosyl bromide, lactosyl bromide, sialyl chloride, and N-Troc-2amino-2-deoxyglucosyl bromide were used as S-glycosylation agents. Depending on the solubility of the peptide moiety, mixts. of DMF and water could be used for successfully carrying out this reaction. Thus, S- glycosylated tripertides Boc-Thr-Hcy(R)-Ala-NH2 [Hcy = L-homocysteinyl; R = 2,3,4,6-tetra-O-acetyl- β -D-galactopyranosyl; 3,4,6-tri-O-acetyl-2-deoxy-2-(2,2,2trichloroethyloxycarbonylamino)- β - D-glucopyranosyl; R = 2,3,4,6-tetra-Oacetyl- β -D-glucopyranosyl] were obtained. Combination of this method with chemical ligation was also successfully carried out. CC 34-3 (Amino Acids, Peptides, and Proteins) Section cross-reference(s): 33 ST glycopeptide S linked prepn; glycosylation thio homocysteine cysteine peptide protected glycosyl halide ΤТ Glycopeptides RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides) ΙT Glycosylation (thioglycosylation; preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl paptides by O-acetyl-protected glycosyl halides) 100-14-1, p-Nitrobenzyl chloride 144-48-9, Iodoacetamide ΙT 528-76-7, 2,4-Dinitrobenzenesulfenvl chloride 572-09-8 626-72-2, L-Homocystine 2592-18-9 3068-32-4 4753-07-5 10389-65-8 18598-74-8 33208-99-0 41036-19-5 53559-18-5 60108-51-2 67124-60-1 67670-69-3 67817-15-6 569341-16-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides) 130981-51-0P 569341-03-3F 569341-04-4F 569341-05-5P ΙT 569341-06-6P 569341-21-5P 569341-23-7P 569341-24-8P 569341-28-2P 569341-29-3P 569341-30-6P 569341-31-7P 569341-36-2P 569341-37-3P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides) 569341-07-7P 569341-08-8P 569341-09-9P 569341-10-2P 569341-11-3P ΙT 569341-12-4P 569341-13-5P 569341-14-6P 569341-17-9P 569341-18-0P 569341-19-1P 569341-20-4P 569341-22-6P 569341-26-0P 569341-25-9P 569341-27-1P 569341-32-8P 569341-33-9P 569341-34-0P 569341-35-1P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides) ΙT 569341-03-3P 569341-04-4P 569341-28-2P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides) 569341-03-3 HCAPLUS RN L-Alaninamide, N-[(1,1-dimethylethoxy)carbonyl]-L-homocysteinyl-, bimol. CN $(1\rightarrow 1')$ -disulfide (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 569341-04-4 HCAPLUS

CN L-Isoleucine, N-[(1,1-dimethylethoxy)carbonyl]-L-homocysteinyl-, methyl ester, bimol. (1 \rightarrow 1')-disulfide (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 569341-28-2 HCAPLUS

CN L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-homocysteinyl-, bimol. $(1\rightarrow 1')$ -disulfide (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-B

REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 15 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2002:72183 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 136:123686

TITLE: Preparation of polysaccharide-based hydrogel films INVENTOR(S): Luo, Yi; Prestwich, Glenn D.; Kirker, Kelly R. PATENT ASSIGNEE(S): University of Utah Research Foundation, USA

SOURCE: PCT Int. Appl., 92 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                                      KIND DATE
                                                                    APPLICATION NO.
                                      ____
                                                                     ______
                                                                    WO 2001-US22556
                                                                                                         20010717 <--
        WO 2002006373
                                       A1
                                                 20020124
              W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                    CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
                    GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
                    LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
                    RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
                    UZ, VN, YU, ZA, ZW
              RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
                    DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
                    BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                  20020124 CA 2001-2416698 20010717 <--
        CA 2416698
                                        Α1
        EP 1305355
                                        A1
                                                 20030502
                                                                    EP 2001-957173
                                                                                                          20010717 <--
              R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                                                      US 2000-218725P P 20000717 <--

WO 2001-US22556 W 20010717 <--
PRIORITY APPLN. INFO.:
                                                                                                    W 20010717 <--
                                                                      WO 2001-US22556
ED
        Entered STN: 25 Jan 2002
        The present invention provides improved hydrogel films useful for the
AΒ
        therapeutic treatment. The invention also provides materials and methods for
        modification and polymerization of polysaccharides into hydrogel films, which
        swell after exposure to a neutral aqueous solution. The methods may include
        modification of a polysaccharide having at least 1 carboxylic acid group into
        a polysaccharide dihydrazide derivative, which is then crosslinked with a
        polyaldehyde to create a hydrogel film. The invention also relates to
        pharmaceutical compns. composed of a pharmaceutical and a hydrogel film of the
        invention. Hyaluronic acid was treated with adipic dihydrazide (ADH) followed
        by the reaction with \begin{subarray}{c} \be
        produced when the crosslinking agent (PEG -dialdehyde) was used in a molar
        ratio of 0.25, 0.5, and 1 relative to ADH.
IC
        ICM C08G063-48
        ICS C08G063-91; A61K009-14
        63-6 (Pharmaceuticals)
CC
        Section cross-reference(s): 33, 37
        polysaccharide adipic hydrazide PEG hydrogel prepn
ST
        Peptides, biological studies
ΙT
        RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
             (agonists; preparation of polysaccharide-based hydrogel films)
ΙT
        Antibodies and Immunoglobulins
        RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
             (conjugates, with toxins; preparation of
            polysaccharide-based hydrogel films)
        Drug delivery systems
ΤТ
             (hydrogels; preparation of polysaccharide-based hydrogel films)
ΙT
        Glycosaminoglycans, biological studies
        Polysaccharides, biological studies
        RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
        study); PREP (Preparation); USES (Uses)
             (reaction products with polyoxyalkylenes; preparation of
            polysaccharide-based hydrogel films)
        1071-93-8DP, Adipic dihydrazide, reaction products polysaccharides
ΙT
        9004-61-9DP, Hyaluronic acid, derivs., reaction products with
        polyoxyalkylenes 9007-28-7DP, Chondroitin sulfate, derivs.,
        reaction products with polyoxyalkylenes 9067-32-7DP, Sodium
        Hyaluronate, derivs., reaction products with polyoxyalkylenes
        24967-93-9DP, Chondroitin 4-sulfate, derivs., reaction products with
        polyoxyalkylenes 25322-46-7DP, Chondroitin 6-sulfate, derivs.,
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reaction products with polyoxyalkylenes
                                              151709-76-1P
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (preparation of polysaccharide-based hydrogel films)
     50-02-2, Dexamethasone 50-22-6, Corticosterone 50-23-7, Hydrocortisone
ΙT
     50-24-8, Prednisolone 50-36-2, Cocaine 51-21-8, 5-Fluorouracil
     51-61-6, Dopamine, biological studies 53-03-2, Prednisone 53-06-5,
     Cortisone 53-86-1, Indomethacin 54-05-7, Chloroquine 57-27-2,
     Morphine, biological studies 57-83-0, Progesterone, biological studies
     58-22-0, Testosterone 58-55-9, Theophylline, biological studies
     58-73-1, Diphenhydramine 58-74-2, Papaverine 59-05-2, Methotrexate
     59-67-6, Niacin, biological studies 60-54-8, Tetracycline
     biological studies 69-72-7, Salicylic acid, biological studies
     71-81-8, Isopropamide iodide 83-43-2, 6\alpha-Methylprednisolone
     92-13-7, Pilocarpine 94-09-7, Benzocaine 103-90-2, Acetaminophen
     137-58-6, Lidocaine 317-34-0, Aminophylline 465-65-6, Naloxone
     564-25-0, Doxycycline 865-21-4, Vinblastine 1403-66-3, Gentamycin
     1405-87-4, Bacitracin 4146-43-4D, Butanedioic acid dihydrazide, reaction
     products polysaccharides 5104-49-4, Flurbiprofen 5536-17-4, Vidarabine
     5874-97-5, Metaproterenol sulfate 9000-11-7D, Carboxymethyl cellulose,
     derivs., reaction products with polyoxyalkylenes 9000-69-5D,
     Pectin, derivs., reaction products with polyoxyalkylenes
     9002-01-1, Streptokinase 9002-68-0, Follicle stimulating hormone
     9002-72-6, Somatotropin 9004-10-8, Insulin, biological studies 9005-32-7D, Alginic acid, derivs., reaction products with
     polyoxyalkylenes 9005-49-6D, Heparin, derivs., reaction products
                            9050-30-0D, Heparan sulfate, derivs.,
     with polyoxyalkylenes
     reaction products with polyoxyalkylenes 11111-12-9,
     Cephalosporin 15307-79-6, Diclofenac sodium 15663-27-1, Cisplatin
    15687-27-1, Ibuprofen 16590-41-3, Naltrexone 20247-84-1D, Suberic acid dihydrazide, reaction products polysaccharides 22204-53-1, Naproxen
     24967-94-0D, Dermatan sulfate, derivs., reaction products with
     polyoxyalkylenes 25316-40-9, Adriamycin 36322-90-4, Piroxicam
     38304-91-5, Minoxidil 52485-79-7, Buprenorphine 61912-98-9,
     Insulin-like growth factor 62031-54-3, Fibroblast growth factor
     62229-50-9, Epidermal growth factor 62683-29-8, Colony stimulating
              70226-44-7D, Heparan, derivs., reaction products with
     factor
                       75634-40-1D, Dermatan, derivs., reaction
     polyoxyalkylenes
     products with polyoxyalkylenes 106096-93-9, Basic Fibroblast
     growth factor 106266-06-2, Risperidone
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (preparation of polysaccharide-based hydrogel films)
                              THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                         3
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L147 ANSWER 16 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN
                        2001:935447 HCAPLUS Full-text
ACCESSION NUMBER:
                         136:58851
DOCUMENT NUMBER:
                         Targeted combination immunotherapy of cancer and
TITLE:
                         infectious diseases
                         Griffiths, Gary L.; Hansen, Hans J.; Goldenberg, David
INVENTOR(S):
PATENT ASSIGNEE(S):
                         Immunomedics, Inc., USA
SOURCE:
                         PCT Int. Appl., 40 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Pat.ent.
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:
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PATENT NO.
                       KIND
                               DATE
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     WO 2001097855
                        A2 20011227 WO 2001-US41048 20010620 <--
                         A3
     WO 2001097855
                               20030731
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
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             IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
             GW, ML, MR, NE, SN, TD, TG
                                          US 2000-597580
     US 7011812
                        B1 20060314
                                                                  20000620 <--
     EP 1351712
                        A2
                              20031015
                                          EP 2001-951084
                                                                  20010620 <--
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                              20070801
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     AT 368477
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                               20070815
                                         AT 2001-951084
                                                                   20010620 <--
    US 20030232011
                        A1 20031218 US 2003-361026
                                                                   20030210 <--
                        B2 20071127
     US 7300644
     US 20080031813
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US 2000-597580 A 20000620 <--
US 1996-17011P P 19960503 <--
US 1998-184950 A2 19981103 <--
WO 2001-US41048 W 20010620 <--
US 2003-361026 A3 20030210 <--
                        A1 20080207
                                         US 2007-872139
                                                                  20071015 <--
PRIORITY APPLN. INFO.:
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ED Entered STN: 28 Dec 2001

AΒ The present invention is directed to methods for treating cancer wherein more than one therapeutic agent is used, with each of the therapeutic agents having different tumor-killing capabilities, and wherein the therapeutic agents are delivered to the tumor sites using combined targeting and pre-targeting methods. The methods of the present invention achieve good tumor to non-tumor ratios of the therapeutic agents, and are effective for cancer therapy. It comprises administering a first conjugate, which contains a targeting moiety, a therapeutic agent, and a first member of a binding pair; then optionally administering a clearing agent to clear non-targeted first conjugates; and then administering a second conjugate, which contains the complementary binding member of the binding pair and a second therapeutic agent. The targeting moiety is an antibody or an antigen binding antibody fragment capable of specifically binding to at least one epitope on the marker substances associated with, produced by or on the surface of the tumor or infectious disease causing agent, or on a component of the second conjugate. The therapeutic agents may be radionuclides, drugs, toxins or boron addends.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 8, 15

IT Antibodies and Immunoglobulins

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (MN-14, to carcinoembryonic antigen, <u>conjugates</u> with yttrium-88; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> with clearing agents)

IT Ribosome-inactivating proteins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(PAP (pokeweed antiviral protein), <u>conjugates</u> with targeting moieties; targeted combination immunotherapy of cancer and infectious

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diseases using conjugates of targeting moieties and
        radionuclides or drugs or toxins or boron addends with
        clearing agents)
     Sulfonic acids, biological studies
ΤT
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (alkanesulfonic, salts, conjugates with targeting moieties;
        targeted combination immunotherapy of cancer and infectious diseases
        using conjugates of targeting moieties and radionuclides or
        drugs or toxins or boron addends with clearing agents)
     Antibodies and Immunoglobulins
ΙT
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (anti-idiotypic, as clearing agents; targeted combination immunotherapy
        of cancer and infectious diseases using conjugates of
        targeting moieties and radionuclides or drugs or toxins or
        boron addends with clearing agents)
     Carcinoembryonic antigen
ΤТ
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (antibodies to, conjugates with therapeutic agents;
        targeted combination immunotherapy of cancer and infectious diseases
        using conjugates of targeting moieties and radionuclides or
        drugs or toxins or boron addends with clearing agents)
ΙT
    Antigens
     Haptens
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (as target for therapeutic conjugates; targeted combination
        immunotherapy of cancer and infectious diseases using
        conjugates of targeting moieties and radionuclides or drugs or
        toxins or boron addends with clearing agents)
     Antibodies and Immunoglobulins
ΤТ
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (bispecific, conjugates with therapeutic agents; targeted
        combination immunotherapy of cancer and infectious diseases using
        conjugates of targeting moieties and radionuclides or drugs or
        toxins or boron addends with clearing agents)
ΙT
     Nucleopeptides
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (complementary, conjugates with therapeutic agents; targeted
        combination immunotherapy of cancer and infectious diseases using
        conjugates of targeting moieties and radionuclides or drugs or
        toxins or boron addends with clearing agents)
ΙT
    Antibiotics
        (conjugates with targeting moieties; targeted combination
        immunotherapy of cancer and infectious diseases using
        conjugates of targeting moieties and radionuclides or drugs or
        toxins or boron addends with clearing agents)
ΤТ
     Abrins
     Corticosteroids, biological studies
     Cytokines
     Enzymes, biological studies
       Exotoxins
     Hormone antagonists
     Hormones, animal, biological studies
       Ricins
       Toxins
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
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(<u>conjugates</u> with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> or boron addends with clearing agents)

IT cDNA

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(<u>conjugates</u> with therapeutic agents; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> or boron addends with clearing agents)

IT Antibodies and Immunoglobulins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(<u>conjugates</u>, with therapeutic agents; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> or boron addends with clearing agents)

IT Toxins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(diphtheria, <u>conjugates</u> with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> or boron addends with clearing agents)

IT Polymers, biological studies

Polyoxyalkylenes, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug <u>conjugates</u> containing targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)

IT Drug delivery systems

(immunoconjugates; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)

IT Drug delivery systems

(immunotoxins; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> or boron addends with clearing agents)

IT Radionuclides, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(labeled <u>conjugates</u> containing targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> or boron addends with clearing agents)

IT Drug delivery systems

(liposomes, drug <u>conjugates</u> containing targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using <u>conjugates</u> of targeting moieties and radionuclides or drugs or <u>toxins</u> or boron addends with clearing agents)

IT Antibodies and Immunoglobulins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(monoclonal, anti-idiotypic, biotinylated and galactosylated, as clearing agents; targeted combination immunotherapy of cancer and

infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins with clearing agents) ΙT Chloramines RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nitrogen mustards, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) ΙT Drug delivery systems (prodrugs; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) Ribosome-inactivating proteins ΤT RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (saporin, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) Antitumor agents ΤТ Drug delivery systems Drug interactions Infection Radiotherapy (targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) Alkaloids, biological studies RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (vinca, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) ΙT Toxins RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) $(\alpha-, conjugates with targeting moieties; targeted$ combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) 67-43-6D, Diethylenetriaminepentaacetic acid, antibody ΙT conjugates labeled with yttrium-88 9013-20-1D, Streptavidin, antibody conjugates labeled with yttrium-88 13982-36-0D, Yttrium-88, labeled conjugates containing targeting moieties, biological studies 15750-15-9D, Indium-111, labeled conjugates containing targeting moieties, biological studies 127893-37-2D, indium-111 complex, reaction product with biotin 192221-14-0D, reaction product with Zz-DTPA-In111 peptide complex RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) 57-13-6D, Urea, derivs., conjugates with targeting moieties ΙT

59-30-3D, Folic acid, analogs, conjugates with targeting

moieties 60-34-4D, Methyl hydrazine, derivs., conjugates with

targeting moieties 120-73-0D, Purine, analogs, conjugates with targeting moieties 151-56-4D, Ethylenimine, derivs., conjugates with targeting moieties 289-95-2D, Pyrimidine, analogs, conjugates with targeting moieties 7440-06-4D, Platinum, coordination complexes, conjugates with targeting moieties 7440-42-8D, Boron, addends, conjugates with targeting moieties 7689-03-4D, Camptothecin, conjugates with targeting moieties 9001-99-4D, RNase, conjugates with targeting moieties 9003-98-9D, DNase, conjugates with targeting moieties 10043-66-0D, Iodine-131, labeled conjugates containing targeting moieties, biological studies 10098-91-6D, Yttrium-90, labeled conjugates containing targeting moieties, biological studies 13010-20-3D, Nitrosourea, derivs., conjugates with targeting 13967-65-2D, Holmium-166, labeled conjugates containing moieties targeting moieties, biological studies 13981-25-4D, Copper-64, labeled conjugates containing targeting moieties, biological studies 14158-31-7D, Iodine-125, labeled conjugates containing targeting moieties, biological studies 14158-35-1D, Iridium-194, labeled conjugates containing targeting moieties, biological studies 14265-75-9D, Lutetium-177, labeled conjugates containing targeting moieties, biological studies 14378-26-8D, Rhenium-188, labeled conjugates containing targeting moieties, biological studies 14391-11-8D, Gold-199, labeled conjugates containing targeting moieties, biological studies 14391-19-6D, Terbium-161, labeled conjugates containing targeting moieties, biological studies 14391-96-9D, Scandium-47, labeled conjugates containing targeting moieties, biological studies 14596-37-3D, Phosphorus-32, labeled conjugates containing targeting moieties, biological studies 14687-61-7D, Arsenic-77, labeled conjugates containing targeting moieties, biological studies 14981-64-7D, Palladium-109, labeled conjugates containing targeting moieties, biological studies 14981-79-4D, Praseodymium-143, labeled conjugates containing targeting moieties, biological studies 14998-63-1D, Rhenium-186, labeled conjugates containing targeting moieties, biological studies 15056-34-5D, Triazene, derivs., conjugates with targeting moieties 15092-94-1D, Lead-212, labeled conjugates containing targeting moieties, biological studies 15749-57-2D, labeled conjugates containing targeting moieties, biological studies 15749-66-3D, Phosphorus-33, labeled conjugates containing targeting moieties, biological studies 15755-39-2D, Astatine-211, labeled conjugates containing targeting moieties, biological studies 15757-86-5D, Copper-67, labeled conjugates containing targeting moieties, biological studies 15760-04-0D, Silver-111, labeled conjugates containing targeting moieties, biological studies 15765-78-3D, Rhenium-189, labeled conjugates containing targeting moieties, biological studies $157\overline{66-00-4D}$, Samarium-153, labeled conjugates containing targeting moieties, biological studies 15776-20-2D, Bismuth-213, labeled conjugates containing targeting moieties, biological studies 25322-68-3D, PMG, drug conjugates containing targeting moieties 33069-62-4D, Taxol, conjugates with targeting moieties 75037-46-6D, Gelonin, conjugates with targeting moieties 113440-58-7D, Calicheamicin, conjugates with targeting moieties 187888-07-9D, Endostatin, conjugates with targeting moieties RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents) 25322-68-3D, PEG, drug conjugates containing

targeting moieties

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

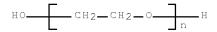
(Biological study); USES (Uses)

(targeted combination immunotherapy of cancer and infectious diseases using $\underline{\texttt{conjugates}}$ of targeting moieties and radionuclides or

drugs or toxins or boron addends with clearing agents)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 17 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:568348 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 135:170778

TITLE: Anti-tissue factor antibody-chemotherapeutic

agent conjugates

INVENTOR(S): Sekimori, Yasuo; Miyamoto, Hajime; Kawada, Hiromitsu;

Nagao, Shunsuke

PATENT ASSIGNEE(S): Chuqai Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| | | | | |
| JP 2001213804 | A | 20010807 | JP 2000-22898 | 20000131 < |
| PRIORITY APPLN. INFO.: | | | JP 2000-22898 | 20000131 < |

ED Entered STN: 07 Aug 2001

AB The invention relates to an anti-tissue factor antibody -antitumor agent conjugate or an anti-tissue factor antibody-toxin conjugate with a linking agent providing improved drug targeting effect. An immunotoxin of anti-tissue factor antibody-gelonin conjugate was prepared with N-succinimidyl 3-(2-pyridyldithio)propionate, and its inhibitory effect on protein synthesis in J 82 human bladder carcinoma cells was examined

IC ICM A61K045-00

ICS A61K039-395; A61K049-00; A61P035-00; C07K014-52; C07K014-745; C07K016-36; C07K019-00; C12P021-08

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 15

ST immunoconjugate tissue factor antibody antitumor; immunotoxin tissue factor antibody gelonin

IT Ricins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibodytoxin conjugates with linking agents)

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ML-I (mistletoe lectin I); anti-tissue factor antibody
-antitumor agent conjugates or anti-tissue factor
antibody-toxin conjugates with

```
linking agents)
ΙT
     Proteins, specific or class
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (PAP-S (pokeweed antiviral protein); anti-tissue factor
        antibody-antitumor agent conjugates or anti-tissue
        factor antibody-toxin conjugates with
        linking agents)
     Proteins, specific or class
ΤТ
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (Tritin; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Proteins, specific or class
ΙT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (Volkesin; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Antitumor agents
ΤТ
     Drug targeting
        (anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Cytokines
     Interferons
     Interleukin 2
     Tumor necrosis factors
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Proteins, specific or class
ΙT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (briodin; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Proteins, specific or class
ΙT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (dianthin 32; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
ΙT
     Toxins
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (diphtheria; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
ΙT
     Pseudomonas
        (endotoxin; anti-tissue factor <a href="mailto:antibody-antitumor">antitumor</a> agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
ΤT
     Toxins
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (endotoxins; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
ΙT
     Drug delivery systems
        (immunoconjugates; anti-tissue factor antibody-antitumor
        agent conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Drug delivery systems
ΤТ
        (immunotoxins; anti-tissue factor antibody-antitumor agent
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conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Peptides, biological studies
ΙT
       Polyoxyalkylenes, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (linking agents; anti-tissue factor antibody
        -antitumor agent conjugates or anti-tissue factor
        antibody-toxin conjugates with
        linking agents)
     Drug delivery systems
ΙT
        (liposomes; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Proteins, specific or class
ΙT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (luffin; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Proteins, specific or class
ΙT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (momorcochin; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
    Proteins, specific or class
ΤT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (momordins; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Antibodies
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
     USES (Uses)
        (monoclonal; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Proteins, specific or class
ΙT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (saporins; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
ΤТ
     Albumins, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (serum, human, serum Albumin, linking agents; anti-tissue
        factor antibody-antitumor agent conjugates or
        anti-tissue factor antibody-toxin
        conjugates with linking agents)
ΙT
     Toxins
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (toxin A; anti-tissue factor antibody-antitumor
        agent conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     Proteins, specific or class
ΤT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (trichokirin; anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     75037-46-6DP, Gelonin, conjugates with anti-tissue factor
ΙT
     antibodies
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); IMF (Industrial manufacture); THU (Therapeutic use);
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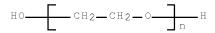
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BIOL (Biological study); PREP (Preparation); USES (Uses)
        (anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
    9035-58-9, Blood-coagulation factor III
ΙT
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (anti-tissue factor antibody-antitumor agent
        conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
     50-07-7D, Mitomycin C, conjugates with anti-tissue factor
    antibodies
                 50-91-9D, 5-Fluoro-2'-deoxyuridine,
    conjugates with anti-tissue factor antibodies
    54-62-6D, Aminopterin, conjugates with anti-tissue factor antibodies 57-22-7D, Vincristine, conjugates with
                                     59-05-2D, Methotrexate,
    anti-tissue factor antibodies
    conjugates with anti-tissue factor antibodies
    147-94-4D, Cytosine arabinoside, conjugates with anti-tissue
    factor antibodies 148-82-3D, Melphalan, conjugates
    with anti-tissue factor antibodies 316-46-1D, 5-Fluorouridine,
    conjugates with anti-tissue factor antibodies
    9014-02-2D, Neocarzinostatin, conjugates with anti-tissue factor
    antibodies 11056-06-7D, Bleomycin, conjugates with
    anti-tissue factor antibodies 15663-27-1D, Cisplatinum,
    conjugates with anti-tissue factor antibodies
    20830-81-3D, Daunorubicin, conjugates with anti-tissue factor
    antibodies 25316-40-9D, Adriamycin, conjugates with
                                   33069-62-4D, Paclitaxel,
    anti-tissue factor antibodies
    conjugates with anti-tissue factor antibodies
    41575-94-4D, Carboplatin, conjugates with anti-tissue factor
    antibodies 53643-48-4D, Vindesine, conjugates with
    anti-tissue factor antibodies 65988-88-7D, modeccin,
    conjugates with anti-tissue factor antibodies
    95787-44-3D, Dodecandrin, conjugates with anti-tissue factor
    antibodies 114977-28-5D, Docetaxel, conjugates with
    anti-tissue factor antibodies
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (anti-tissue factor antibody-antitumor agent
       conjugates or anti-tissue factor antibody-
        toxin conjugates with linking agents)
    58-85-5, Biotin 585-84-2, cis-Aconitic acid 6041-98-1, Glutamic acid
ΙT
                 6539-14-6, 2-Iminothiolane 6953-60-2, S-
    dihydrazide
    Acetylmercaptosuccinic anhydride 9004-54-0, Dextran, biological studies
    9044-05-7, Carboxymethyldextran 25322-68-3, Polyethylene
             37293-51-9, Aminodextran 58626-38-3 59012-54-3
    68181-17-9, N-Succinimidyl 3-(2-pyridyldithio)propionate
                                                               79886-55-8
    103708-10-7 103848-62-0 115088-06-7 115616-51-8 150244-18-1
    158913-22-5
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (linking agents; anti-tissue factor antibody
        -antitumor agent conjugates or anti-tissue factor
        antibody-toxin conjugates with
        linking agents)
    112263-86-2
ΙT
    RL: PRP (Properties)
        (unclaimed protein sequence; anti-tissue factor antibody
        -chemotherapeutic agent conjugates)
    25322-68-3, Polyethylene glycol
ΙT
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (linking agents; anti-tissue factor antibody
        -antitumor agent conjugates or anti-tissue factor
```

antibody-toxin conjugates with

linking agents)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 18 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2001:701736 HCAPLUS Full-text

DOCUMENT NUMBER: 137:37481

TITLE: Conjugation of anti-My9 antibody

to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of

immunotoxin

AUTHOR(S): Sudhan Shaik, M.; Kanikkannan, N.; Singh, M.

CORPORATE SOURCE: Division of Pharmaceutics, Florida A&M University,

College of Pharmacy, Tallahassee, FL, 32307, USA

SOURCE: Journal of Controlled Release (2001), 76(3),

285-295

CODEN: JCREEC; ISSN: 0168-3659 Elsevier Science Ireland Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 26 Sep 2001

The carboxylic ionophore, monensin, was successfully entrapped in stealth AB liposomes by employing the pH-gradient method (interior pH of liposomes 9.5; exterior pH 5.0-5.9). A maximum of 14% of monensin could be entrapped in stealth liposomes by this method. The stealth liposomes could be successfully freeze-dried having mean particle size varying between 197 and 223 nm. The stealth liposomes were conjugated to anti-My9 monoclonal antibody (targeted against CD 33 antigen) by a disulfide linkage with almost full retention of immunoreactivity. The method of conjugation of liposomes with the antibody did not alter the particle size of liposomes and resulted in only 10% leakage of monensin. In-vitro cytotoxicity studies showed that antibody-conjugated monensin liposomes (3.5+10-8 M monensin) potentiated the cytotoxicity of anti-My9 immunotoxin by a factor of 2070, in comparison to 360-fold potentiation observed with unconjugated monensin liposomes against human ${\rm HL}{\text{-}60}$ promyelocytic leukemia cells. These results indicate that it is possible to enhance the in-vitro cytotoxicity of immunotoxin by several folds using antibody-conjugated monensin liposomes.

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

ST stealth monensin liposome antibody conjugate

immunotoxin cytotoxicity

IT Antitumor agents

Encapsulation

Human

PUBLISHER:

Particle size

(<u>conjugation</u> of anti-My9 <u>antibody</u> to stealth monensin liposomes and the effect of <u>conjugated</u> liposomes on the cytotoxicity of immunotoxin)

IT Ricins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(<u>conjugation</u> of anti-My9 <u>antibody</u> to stealth monensin liposomes and the effect of <u>conjugated</u> liposomes on the cytotoxicity of immunotoxin)

IT Drug delivery systems

(immunotoxins; conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT Drug delivery systems

(liposomes; conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT Antibodies and Immunoglobulins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (monoclonal; conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT 17090-79-8, Monensin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT 57-88-5, Cholesterol, biological studies 63-89-8, Dipalmitoyl phosphatidylcholine 124-30-1, Stearylamine 145035-96-7, DSPE-PEG

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 19 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2000:790340 HCAPLUS Full-text

DOCUMENT NUMBER: 133:355211

TITLE: Death domain-containing receptor 5 and compns. for

treatment of immunity-related diseases, viral

diseases, and cancer

INVENTOR(S): Ni, Jian; Gentz, Reiner L.; Yu, Guo-liang; Rosen,

Craig A.

PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA

SOURCE: PCT Int. Appl., 266 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

| PA: | TENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | D. | ATE | | |
|-----|------|------|--------|-----|-----|-----|----------|------|-----|-----------------|------|-------|-----|-----|-------------|------|-----|----|
| WO | 2000 | 0661 | 56 | | A1 | _ | 20001109 | | | WO 2000-US12041 | | | | | 20000504 <- | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | AZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CR, | |
| | | CU, | CZ, | DE, | DK, | DM, | DZ, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | HU, | |
| | | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KΖ, | LC, | LK, | LR, | LS, | LT, | LU, | |
| | | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | NO, | NZ, | PL, | PT, | RO, | RU, | SD, | SE, | |
| | | SG, | SI, | SK, | SL, | ΤJ, | TM, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VN, | YU, | ZA, | ZW |
| | RW: | GH, | GM, | KE, | LS, | MW, | SD, | SL, | SZ, | TZ, | UG, | ZW, | ΑT, | BE, | CH, | CY, | DE, | |
| | | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | ΙΤ, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | |
| | | CG, | CI, | CM, | GΑ, | GN, | GW, | ML, | MR, | ΝE, | SN, | TD, | ΤG | | | | | |
| CA | 2369 | 371 | | | A1 | | 2000 | 1109 | | CA 2 | 000- | 2369 | 371 | | 2 | 0000 | 504 | < |

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EP 1196191
                         Α1
                                20020417
                                           EP 2000-930329
                                                                   20000504 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                                            JP 2000-615040
     JP 2002543151
                     T
                                20021217
                                                                   20000504 <--
     AU 2006246525
                         Α1
                                20061221
                                            AU 2006-246525
                                                                   20061201 <--
PRIORITY APPLN. INFO.:
                                            US 1999-132498P
                                                                P 19990504 <--
                                            US 1999-133238P P 19990507 <--
US 1999-148939P P 19990813 <--
                                            AU 1998-67635
                                                               A 19980317 <--
                                            WO 2000-US12041
                                                               W 20000504 <--
                                            AU 2002-300603 A3 20020809 <--
     Entered STN: 10 Nov 2000
ΕD
     The present invention relates to novel Death Domain Containing Receptor-5
AΒ
     (DR5) proteins which are members of the tumor necrosis factor (TNF) receptor
     family, and have now been shown to bind TRAIL. In particular, isolated
     nucleic acid mols. are provided encoding the human DR5 proteins. DR5
     polypeptides are also provided as are vectors, host cells and recombinant
     methods for producing the same. The invention further relates to screening
     methods for identifying agonists and antagonists of DR5 activity, e.g., for
     treating graft-vs.-host disease, viral infection, cancer, and immune diseases.
IC
     ICM A61K039-00
     ICS A61K039-395; A61K045-00; A01N037-18; C07K014-52; C07K014-525;
         C07K016-28
CC
     63-3 (Pharmaceuticals)
     Section cross-reference(s): 1, 2, 15
     Histocompatibility antigens
ΙT
     RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL
     (Biological study); FORM (Formation, nonpreparative)
        (MHC (major histocompatibility complex), class II; death
        domain-containing receptor 5 and compns. for treatment of immunity-related
       diseases, viral diseases, and cancer)
     Lymphotoxin
ΙT
     Tumor necrosis factors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (antibodies binding; death domain-containing receptor 5
        and compns. for treatment of immunity-related diseases, viral diseases,
        and cancer)
     Antibodies
ΤT
     RL: BPR (Biological process); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (chimeric; death domain-containing receptor 5 and compns. for treatment of
        immunity-related diseases, viral diseases, and cancer)
ΙT
    Anti-inflammatory agents
    Antibiotics
     Antitumor agents
     Antiviral agents
     Autoimmune disease
     Dendritic cell
     Gene therapy
     Hybridoma
     Immunodeficiency
     Immunosuppressants
    Molecular cloning
    Molecular weight distribution
       Peptide library
     Plasmid vectors
     Protein sequences
     cDNA sequences
        (death domain-containing receptor 5 and compns. for treatment of
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10/565,331 immunity-related diseases, viral diseases, and cancer) ΙT Polyoxyalkylenes, biological studies RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) ΙT Antibodies RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) ΙT Immunoglobulins RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (fragments; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) ΙT Antibodies RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (humanized; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) ΙT RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (monoclonal; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) Tumor necrosis factors ΤТ RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (γ, antibodies binding; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) Tumor necrosis factors ΤТ RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) $(\gamma-\alpha, \text{ antibodies binding; death})$ domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) ΙT Tumor necrosis factors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) $(\gamma - \beta)$, antibodies binding; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) 25322-68-3 ΙT RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer) ΙT 25322-68-3 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (death domain-containing receptor 5 and compns. for treatment of

immunity-related diseases, viral diseases, and cancer)

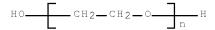
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)

25322-68-3 HCAPLUS

RN

CN

119



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 20 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2000:645875 HCAPLUS Full-text

DOCUMENT NUMBER: 133:242572

TITLE: Cyanovirin <u>conjugates</u>, matrix-anchored cyanovirin, and anti-cyanovirin antibodies

and related compositions for removal of viruses from

APPLICATION NO.

DATE

samples

INVENTOR(S): Boyd, Michael R.

PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

KIND DATE

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.

| IA. | T 171/1 | 140. | | | | | DAIE | | APPLICATION NO. DATE | | | | | | | | | |
|-----|---------|------------------|------|------|------|-----|------|------|----------------------|----------------|------|------|-----|-----|------|------|-----|---|
| | 2000 | | | | A2 | | | | | WO 2000-US6247 | | | | | | | < | |
| | W: | ΑE, | AL, | AM, | AT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CR, | CU, | , |
| | | | | | | | EE, | | | | | | | | | | | |
| | | | | | | | KG, | | | | | | | | | | | |
| | | MA, | MD, | MG, | MK, | MN, | MW, | MX, | NO. | NZ, | PL, | PT, | RO, | RU, | SD, | SE, | SG. | , |
| | | • | | • | | | TR, | | | • | • | | • | | | • | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AT, | BE, | CH, | CY, | DE, | , |
| | | | | | | | GR, | | | | | | | | | | | |
| | | | | | | | GW, | | | | | | | | · | · | | |
| US | 6428 | 790 [.] | · | • | В1 | · | 2002 | 0806 | • | US 1 | 999- | 4164 | 34 | | 1 | 9991 | 012 | < |
| CA | 2364 | 500 | | | A1 | | 2000 | 0914 | | CA 2 | 000- | 2364 | 500 | | 2 | 0000 | 310 | < |
| ΑU | 2000 | | | | | | 2000 | 0928 | | AU 2 | 000- | 3523 | 1 | | 2 | 0000 | 310 | < |
| AU | 7627 | 04 | | | В2 | | 2003 | 0703 | | | | | | | | | | |
| EP | 1162 | 992 | | | | | 2001 | | | EP 2 | 000- | 9138 | 69 | | 2 | 0000 | 310 | < |
| EP | 1162 | 992 | | | В1 | | 2005 | 0525 | | | | | | | | | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙΤ, | LI, | LU, | NL, | SE, | MC, | PT, | , |
| | | ΙE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | | |
| JP | 2002 | 5382 | 17 | | Τ | | 2002 | 1112 | | JP 2 | 000- | 6037 | 02 | | 2 | 0000 | 310 | < |
| | 2961 | | | | | | 2005 | | | AT 2 | 000- | 9138 | 69 | | 2 | 0000 | 310 | < |
| AU | 2003 | 2522 | 07 | | A1 | | 2003 | 1106 | | AU 2 | 003- | 2522 | 07 | | 2 | 0031 | 002 | < |
| ΑU | 2003 | 2522 | 07 | | В2 | | 2005 | 0811 | | | | | | | | | | |
| RIT | Y APP | LN. | INFO | .: | | | | | | US 1 | 999- | 2674 | 47 | | A 1 | 9990 | 312 | < |
| | | | | | | | | | | US 1 | 999- | 4164 | 34 | | A 1 | 9991 | 012 | < |
| | | | | | | | | | | US 1 | 995- | 4299 | 65 | | A3 1 | 9950 | 427 | < |
| | | | | | | | | | | US 1 | 996- | 6386 | 10 | | A3 1 | 9960 | 426 | < |
| | | | | | | | | | | US 1 | 997- | 9693 | 78 | | A2 1 | 9971 | 113 | < |
| | | | | | | | | | | US 1 | 997- | 9696 | 89 | | A2 1 | 9971 | 113 | < |
| | | | | | | | | | | WO 2 | 000- | US62 | 47 | | W 2 | 0000 | 310 | < |
| Ent | ered | STN | : 1 | 5 Se | p 20 | 0.0 | | | | | | | | | | | | |

ED Entered STN: 15 Sep 2000

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AΒ
     The present invention provides, among other things, methods of removing virus
     from a sample, compns. treated in accordance with such methods, a composition
     comprising a naturally-occurring non- infectious HIV comprising gp120, a
     composition comprising a solid support matrix to which is attached a
     cyanovirin or a conjugate thereof, a conjugate comprising a cyanovirin coupled
     to an anti-cyanovirin antibody or at least one effector component, a
     composition comprising such a conjugate, methods of inhibiting
     prophylactically or therapeutically a viral infection of a host, methods of
     inducing an immune response to a virus in an animal, and a matrix-anchored
     anti-cyanovirin antibody.
IC
     ICM A61K038-16
     ICS A61L002-00; A61F006-00; A61M031-00; A61K047-48; A61P031-18
     63-3 (Pharmaceuticals)
CC
     Section cross-reference(s): 1
ST
     virus removal cyanovirin antibody
     Peptides, biological studies
     Proteins, specific or class
     RL: BPR (Biological process); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (antiviral; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
ΙT
     Contraceptives
        (cervical caps; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
ΙT
     Contraceptives
        (condoms; cyanovirin conjugates, matrix-anchored cyanovirin,
        and anti-cyanovirin antibodies and related compns. for
        removal of viruses from samples)
    AIDS (disease)
ΤТ
    Animal tissue
     Animal virus
     Antiviral agents
     Blood
     DNA sequences
     Human immunodeficiency virus
     Magnetic field
     Membranes, nonbiological
     Nostoc ellipsosporum
     Organ, animal
     Protein sequences
     Semen
     Separation
     Sperm
     Sterilization and Disinfection
     Vaccines
        (cyanovirin conjugates, matrix-anchored cyanovirin, and
        anti-cyanovirin antibodies and related compns. for removal of
        viruses from samples)
ΙT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (cyanovirin conjugates, matrix-anchored cyanovirin, and
        anti-cyanovirin antibodies and related compns. for removal of
        viruses from samples)
     Albumins, biological studies
ΙT
       Polyoxyalkylenes, biological studies
     RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
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use); BIOL (Biological study); PROC (Process); USES (Uses)
        (cyanovirin conjugates, matrix-anchored cyanovirin, and
        anti-cyanovirin antibodies and related compns. for removal of
        viruses from samples)
     Proteins, specific or class
     RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological
     study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
        (cyanovirins; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
     Envelope proteins
ΙT
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (gp120env, of HIV; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
     Proteins, specific or class
ΤТ
     RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST
     (Analytical study); BIOL (Biological study); USES (Uses)
        (immobilized; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
ΙT
    Contraceptives
        (sponges; cyanovirin conjugates, matrix-anchored cyanovirin,
        and anti-cyanovirin antibodies and related compns. for
        removal of viruses from samples)
ΙT
    Contraceptives
        (vaginal rings; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
     184539-38-6
ΙT
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological
     occurrence); BPR (Biological process); BSU (Biological study,
     unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological
     study); OCCU (Occurrence); PROC (Process); USES (Uses)
        (amino acid sequence; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
     9004-54-0, Dextran, biological studies 25322-63-3,
ΙT
     Polyethylene glycol
     RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (cyanovirin conjugates, matrix-anchored cyanovirin, and
        anti-cyanovirin antibodies and related compns. for removal of
        viruses from samples)
ΙT
     184539-37-5
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
     (Properties); BIOL (Biological study); OCCU (Occurrence)
        (nucleotide sequence; cyanovirin conjugates, matrix-anchored
        cyanovirin, and anti-cyanovirin antibodies and related
        compns. for removal of viruses from samples)
ΙT
     184539-39-7
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; cyanovirin conjugates,
        matrix-anchored cyanovirin, and anti-cyanovirin antibodies
        and related compns. for removal of viruses from samples)
     184539-40-0
ΙT
     RL: PRP (Properties)
        (unclaimed protein sequence; cyanovirin conjugates,
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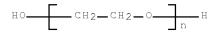
matrix-anchored cyanovirin, and anti-cyanovirin <u>antibodies</u> and related compns. for removal of viruses from samples)

IT 25322-68-3, Polyethylene glycol

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 21 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2000:683141 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 134:17695

TITLE: Intramolecular Sulfur-Oxygen <u>Bond</u> Formation

in Radical Cations of N-Acetylmethionine Amide

AUTHOR(S): Schoneich, Christian; Pogocki, Dariusz; Wisniowski,

Pawel; Hug, Gordon L.; Bobrowski, Krzysztof

CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of

Kansas, Lawrence, KS, 66407, USA

SOURCE: Journal of the American Chemical Society (2000

), 122(41), 10224-10225

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:17695

ED Entered STN: 29 Sep 2000

AB The authors report exptl. evidence for sulfide radical cation-amide association during le-oxidation of Met in model compound CH3C(0)-Met-NH2. Using optical spectra of pulse-irradiated solns, and spectral deconvolution of component radical spectra produced a spectral fit of exptl. data. These data show that Met sulfide radical cations can associate with the oxygen of an amide function, which may be the mechanism of action in β -amyloid peptides associated with senile plaques in Alzheimer's disease.

CC 34-2 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 22

IT Radical ions

(cations; intramol. sulfur-oxygen bond formation in radical cations of N-acetylmethionine amide)

IT Spectra

(deconvolution; intramol. sulfur-oxygen bond formation in radical cations of N-acetylmethionine amide)

IT Oxidation

(intramol. sulfur-oxygen $\underline{\text{bond}}$ formation in radical cations of N-acetylmethionine amide)

IT Peptides, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(intramol. sulfur-oxygen bond formation in radical cations of N-acetylmethionine amide)

IT Radicals, preparation

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intramol. sulfur-oxygen $\underline{\text{bond}}$ formation in radical cations of N-acetylmethionine amide)

IT 3352-57-6, Hydroxide radical, reactions 23361-37-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(intramol. sulfur-oxygen \underline{bond} formation in radical cations of N-acetylmethionine amide)

IT 308797-32-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intramol. sulfur-oxygen $\underline{\text{bond}}$ formation in radical cations of N-acetylmethionine amide)

IT 308797-33-3P 609844-52-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(intramol. sulfur-oxygen $\underline{\text{bond}}$ formation in radical cations of N-acetylmethionine amide)

IT 308797-33-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(intramol. sulfur-oxygen $\underline{\texttt{bond}}$ formation in radical cations of N-acetylmethionine amide)

RN 308797-33-3 HCAPLUS

CN Sulfur(1+), bis[(3R)-3-(acetylamino)-4-amino-4-oxobutyl]dimethyldi- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 22 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1998:484947 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 129:127165

TITLE: Immunomodulator oligonucleotide compositions and

methods for modulation of the expression of B7 protein

INVENTOR(S): Bennett, C. Frank; Vickers, Timothy A.

PATENT ASSIGNEE(S): Isis Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 121 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

| PATENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | D. | ATE | |
|---------|-----|-----|-----|-----|-----|------|------|-----|------|------|-------|-----|-----|-----|-------|-------|
| | | | | | _ | | | | | | | | | _ | | |
| WO 9829 | 124 | | | A1 | | 1998 | 0709 | | WO 1 | 997- | US23 | 270 | | 1 | 9971. | 216 < |
| W: | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CU, | CZ, | DE, |
| | DK, | EE, | ES, | FI, | GB, | GE, | GH, | HU, | IL, | IS, | JP, | KE, | KG, | KP, | KR, | KΖ, |

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LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ,
             VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
            FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
     US 6077833
                         Α
                                20000620
                                         US 1996-777266
                                                                   19961231 <--
     CA 2274581
                         Α1
                                19980709
                                            CA 1997-2274581
                                                                   19971216 <--
     CA 2274581
                         С
                                20040210
                                         AU 1998-57051
                                                                   19971216 <--
    AU 9857051
                         Α
                                19980731
    AU 720969
                         В2
                                20000622
     EP 957926
                                19991124 EP 1997-953268
                                                                   19971216 <--
                         Α1
     EP 957926
                         В1
                                20050216
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000507833
                          Τ
                                20000627
                                            JP 1998-530085
                                                                   19971216 <--
     JP 3471025
                         В2
                                20031125
     AT 289200
                          Τ
                                20050315
                                            AT 1997-953268
                                                                   19971216 <--
     ES 2238083
                          Т3
                                            ES 1997-953268
                                                                   19971216 <--
                                20050816
PRIORITY APPLN. INFO.:
                                            US 1996-777266
                                                                A 19961231 <--
                                            WO 1997-US23270
                                                                W 19971216 <--
     Entered STN: 04 Aug 1998
ED
     Compns. and methods for the diagnosis, prevention and treatment of immune
AΒ
     states and disorders amenable to treatment through modulation of T cell
     activation are provided. In accordance with preferred embodiments,
     oligonucleotides are provided which are specifically hybridizable with nucleic
     acids encoding B7 proteins.
IC
     ICM A61K031-70
     ICS C07H021-00
CC
     63-5 (Pharmaceuticals)
     Section cross-reference(s): 1, 2
     Oligodeoxyribonucleotides
ΙT
     RL: BPR (Biological process); BSU (Biological study, unclassified); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); PROC
     (Process); USES (Uses)
        (alkyl-linked; immunomodulator oligonucleotide compns. and
        methods for modulation of the expression of B7 protein)
ΙT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (antibody conjugates; immunomodulator
        oligonucleotide compns. and methods for modulation of the expression of
        B7 protein)
ΙT
     Drug delivery systems
        (carriers; immunomodulator oligonucleotide compns. and methods for
       modulation of the expression of B7 protein)
ΙT
     Antibodíes
     RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (conjugates, with toxins; immunomodulator
        oligonucleotide compns. and methods for modulation of the expression of
        B7 protein)
    Anti-inflammatory agents
ΤT
     Autoimmune disease
       Drug delivery systems
     Immunomodulators
     Immunosuppressants
     Nucleic acid hybridization
        (immunomodulator oligonucleotide compns. and methods for modulation of
        the expression of B7 protein)
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Oligodeoxyribonucleotides

ΙT

10/565,331 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (methylene(methylimino)-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein) Oligodeoxyribonucleotides RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (methylphosphonate-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein) Oligodeoxvribonucleotides RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (morpholino-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein) Polyoxyalkylenes, biological studies RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (oligonucleotide derivs.; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein) Oligodeoxyribonucleotides RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (polyamide-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein) 57-10-3D, Hexadecanoic acid, oligonucleotide derivs., biological studies 57-88-5D, Cholesterol, oligonucleotide derivs. 81-25-4D, Cholic acid, oligonucleotide derivs. 124-30-1D, Octadecylamine, oligonucleotide 1249-81-6D, Thiocholesterol, oligonucleotide derivs. 25322-68-3D, oligonucleotide derivs. 42862-38-4D, Adamantane acetic acid, oligonucleotide derivs. RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)

25322-68-3D, oligonucleotide derivs. ΙT

> RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)

25322-68-3 HCAPLUS RN

ΙT

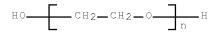
ΙT

ΤT

ΤT

ΙT

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME) CN



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 23 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1998:478950 HCAPLUS Full-text

DOCUMENT NUMBER: 129:127163

TITLE: Methods using immunosuppressive antitumor agent

liposomes for increasing the circulation half-life of

protein-based therapeutics

INVENTOR(S): Tardi, Paul G.; Swartz, Erik; Bally, Marcel B.;

Cullis, Pieter R.

PATENT ASSIGNEE(S): University of British Columbia, Can.

SOURCE: U.S., 15 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| | | | | |
| US 5780054 | A | 19980714 | US 1996-588014 | 19960117 < |
| PRIORITY APPLN. INFO.: | | | US 1996-588014 | 19960117 < |

ED Entered STN: 03 Aug 1998

AB Methods are disclosed for increasing the circulation half-life of protein-based therapeutics in a host, the methods comprising: (a) administering to the host an amount of a first liposome formulation comprising liposomes and an antineoplastic agent; and (b) administering to the host a second formulation comprising the protein-based therapeutic, wherein the amount of the first liposome formulation is sufficient to suppress an immune response to the protein-based therapeutic of the second formulation, thereby increasing the circulation half-life of the protein-based therapeutic.

IC ICM A61K009-127

INCL 424450000

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

IT Immunoglobulins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(G; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(conjugates, with antibodies; immunosuppressive

antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Antibodies

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(conjugates, with toxins; immunosuppressive

antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Folyoxyalkylenes, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (distearoyl phosphatidylethanolamine reaction products, liposome including; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Peptides, biological studies

Proteins, general, biological studies

RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Antibodies

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(liposome coated with; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Drug delivery systems

(liposomes; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Drug delivery systems

(prodrugs; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Antigens

RL: BSU (Biological study, unclassified); BIOL (Biological study) (tumor-associated, <u>antibody</u> to; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT 25104-18-1D, Polylysine, conjugates with transferrin DNA 38000-06-5D, Polylysine, conjugates with transferrin DNA RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT 4537-76-2D, Distearoyl phosphatidylethanolamine, PEC reaction products 25322-68-3D, PEG, distearoyl phosphatidylethanolamine reaction products 113846-31-4

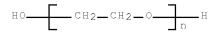
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (liposome including; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT <u>25322-68-3D</u>, <u>PMG</u>, distearoyl phosphatidylethanolamine reaction products

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (liposome including; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 24 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:318181 HCAPLUS Full-text DOCUMENT NUMBER: 126:290381

TITLE: Recombinant proteins having multiple disulfide

bonds and thiol-substituted conjugates

thereof

INVENTOR(S): Leung, Shui-on; Griffiths, Gary L.

PATENT ASSIGNEE(S): Immunomedics, Inc., USA; Leung, Shui-on; Griffiths,

Gary L.

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | | KINI | IND DATE | | | APPLICATION NO. | | | | | DATE | | | | | |
|------------|-------|-------|-------|-----|------|----------|-----|------|-----------------|-----|-------|-------|-------|------|-----|------|-------|-----|---|
| WO | 97: | 11370 |) | | | A1 | | 1997 | 0327 | 1 | WO 1 | 996-1 | JS14: | 832 | | 19 | 99609 | 920 | < |
| | W | : AI | J, Al | Μ, | ΑT, | ΑU, | ΑZ, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CU, | CZ, | DE, | DK, | |
| | | EF | . E | S, | FI, | GB, | GE, | HU, | IL, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, | LK, | |
| | | LI | ₹, L: | S, | LT, | LU, | LV, | MD, | MG, | MK, | MN, | MW, | MX, | NO, | NZ, | PL, | PT, | RO, | |
| | | RU | J, SI | D, | SE, | SG, | SI, | SK, | ΤJ, | TM, | TR, | TT, | UA, | UG, | US, | UZ, | VN | | |
| | RI | √: KI | ., L: | S, | MW, | SD, | SZ, | UG, | ΑT, | BE, | CH, | DE, | DK, | ES, | FI, | FR, | GB, | GR, | |
| | | IF | ., I | Τ, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | CG, | CI | | | | | |
| CZ | A 223 | 32601 | - | | | A1 | | 1997 | 0327 | (| CA 19 | 996- | 2232 | 601 | | 19 | 99609 | 920 | < |
| ΑU | J 96' | 71604 | Į | | | Α | | 1997 | 0409 | | AU 19 | 996- | 7160 | 4 | | 19 | 99609 | 920 | < |
| ΑU | J 702 | 2975 | | | | В2 | | 1999 | 0311 | | | | | | | | | | |
| EI | 86 | 1440 | | | | A1 | | 1998 | 0902 | | EP 1 | 996- | 9330: | 32 | | 19 | 99609 | 920 | < |
| | R | : A | ., Bl | Ε, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙΤ, | LI, | LU, | NL, | SE, | MC, | PT, | |
| | | IF | . F | I | | | | | | | | | | | | | | | |
| JI | 2 11! | 51422 | 23 | | | Τ | | 1999 | 1207 | | JP 1 | 996- | 5128 | 15 | | 19 | 99609 | 920 | < |
| PRIORI | ΓΥ AI | PLN. | IN | FO. | . : | | | | | 1 | JS 1 | 995- | 41691 | P |] | 2 19 | 99509 | 922 | < |
| | | | | | | | | | | 1 | WO 19 | 996-1 | JS14 | 832 | Ţ | W 19 | 99609 | 920 | < |

- ED Entered STN: 19 May 1997
- The present invention relates to recombinant antigen—binding proteins having multiple disulfide bonds useful for the preparation of immunoconjugates. In particular, this invention relates to recombinant antibodies comprising an IgG3 hinge region and lacking a CH2 constant domain. These mutated antibodies are used to bind a diagnostic or therapeutic agent through ≥1 reduced disulfide bonds in the antibody hinge region. Thus, the invention contemplates the use of such immunoconjugates in diagnosis and therapy.
- IC ICM G01N033-53
 - ICS A61K039-395; C07K016-00
- CC 9-10 (Biochemical Methods)
 - Section cross-reference(s): 8, 14, 15
- ST recombinant <u>antibody</u> immunoconjugate prepn diagnosis immunotherapy; mutated <u>antibody binding</u> antigen tumor infection
- IT Immunoglobulins
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (G3, hinge region, immunoconjugates containing; recombinant antíbodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Onium compounds
 - RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(acridinium, esters, immunoconjugates containing; recombinant

antibodies with multiple disulfide bonds for

immunoconjugate preparation)

- IT Luminescent substances
 - (bioluminescent; recombinant <u>antibodies</u> with multiple disulfide bonds for immunoconjugate preparation)
- IT Peptides, biological studies
 - RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cysteine-containing, mutated antibody conjugates; recombinant antibodies with multiple disulfide bonds

for immunoconjugate preparation) ΙT Cardiovascular system (disease; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) ΙT Antibacterial agents Antitumor agents Antiviral agents Drugs Fungicides Immunomodulators Protozoacides (immunoconjugates containing; recombinant antibodies with multiple disulfide bands for immunoconjugate preparation) Aequorins ΙT Allophycocyanins Enzymes, biological studies Phycocyanins Phycoerythrins RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (immunoconjugates containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) ΙT Peptides, biological studies Polymers, biological studies Radionuclides, biological studies Radionuclides, biological studies Toxins RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (immunoconjugates containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) ΙT Drug delivery systems RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (immunoconjugates; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) Scintigraphy ΙT (immunoscintigraphy; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) ΙT Heart, disease (infarction; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) Polyoxyalkylenes, biological studies ΙT RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (maleimide deriv, mutated antibody conjugates; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) ΙT Antibodies RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (monoclonal, recombinant; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) Anthracyclines TΤ RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (mutated antibody conjugates; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation) Radionuclides, biological studies ΙT RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

```
(mutated antibody conjugates; recombinant
        antibodies with multiple disulfide bonds for
        immunoconjugate preparation)
ΙT
     Carbohydrates, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (mutated antibody containing; recombinant antibodies
        with multiple disulfide bonds for immunoconjugate preparation)
ΤТ
     Gene
     RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (mutated antibody-encoding; recombinant antibodies
        with multiple disulfide bonds for immunoconjugate preparation)
     Alkylating agents, biological
ΙT
     Chemiluminescent substances
     Diagnosis
     Dves
     Fluorescent substances
     Genetic vectors
     Immunotherapy
     Infection
     Neoplasm
     Paramagnetic materials
     Plasmids
        (recombinant antibodies with multiple disulfide bonds
        for immunoconjugate preparation)
ΙT
     Antigens
     RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL
     (Biological study); USES (Uses)
        (recombinant antibodies with multiple disulfide bonds
        for immunoconjugate preparation)
     Radionuclides, biological studies
ΙT
     RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
     study); BIOL (Biological study); USES (Uses)
        (recombinant antibodies with multiple disulfide bonds
        for immunoconjugate preparation)
     Thiols (organic), reactions
ΙT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (recombinant antibodies with multiple disulfide bonds
        for immunoconjugate preparation)
ΙT
     Antibodies
     RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (recombinant; recombinant antibodies with multiple disulfide
        bonds for immunoconjugate preparation)
TΤ
     Proteins, general, biological studies
     RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (recombinant; recombinant proteins with multiple disulfide
        bonds and their thiol-substituted conjugates)
ΤT
     Bond
        (sulfur-sulfur, proteins containing; recombinant antibodies with
        multiple disulfide bonds for immunoconjugate preparation)
     Antigens
ΙT
     RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL
     (Biological study); USES (Uses)
        (tumor-associated; recombinant antibodies with multiple
        disulfide bonds for immunoconjugate preparation)
     7440-57-5D, Gold, immunoconjugates containing, biological studies
ΙT
     RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
     study); BIOL (Biological study); USES (Uses)
```

```
(colloidal; recombinant antibodies with multiple disulfide
       bonds for immunoconjugate preparation)
ΙT
    22559-71-3D, Acridinium, salts
    RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
    study); BIOL (Biological study); USES (Uses)
        (immunoconjugates containing; recombinant antibodies with
       multiple disulfide bonds for immunoconjugate preparation)
    81-88-9D, immunoconjugates containing 144-62-7D, Ethanedioic acid, esters,
ΤТ
    immunoconjugates containing, biological studies 288-32-4D, Imidazole,
    immunoconjugates containing 521-31-3D, Luminol, immunoconjugates containing
    643-79-8D, o-Phthalaldehyde, immunoconjugates containing
                                                               2591-17-5D,
    Luciferin, immunoconjugates containing 3682-14-2D, Isoluminol,
                                  9001-37-0D, Glucose oxidase, immunoconjugates
    immunoconjugates containing
                9001-78-9D, immunoconjugates containing
    containing
                                                          9003-99-0D, Peroxidase,
    immunoconjugates containing 9014-00-0D, Luciferase, immunoconjugates
containing
    9031-11-2D, \beta-Galactosidase, immunoconjugates containing
                                                               27072-45-3D,
    FITC, immunoconjugates containing 38183-12-9D, Fluorescamine,
    immunoconjugates containing
    RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
    study); BIOL (Biological study); USES (Uses)
        (recombinant antibodies with multiple disulfide bonds
       for immunoconjugate preparation)
ΙT
    305-03-3, Chlorambucil
                            189120-84-1
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (recombinant antibodies with multiple disulfide bonds
       for immunoconjugate preparation)
IT
    52-90-4, Cysteine, reactions 55-86-7, Nitrogen mustard 60-23-1,
    Cysteamine 60-24-2, Mercaptoethanol 70-18-8, GSH, reactions
    505-60-2, Sulfur mustard 3483-12-3, Dithiothreitol 6892-68-8,
    Dithioerythritol 73902-98-4
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (recombinant antibodies with multiple disulfide bonds
       for immunoconjugate preparation)
    189035-06-1P
ΙT
    RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
    USES (Uses)
        (recombinant antibodies with multiple disulfide bonds
        for immunoconjugate preparation)
    59-05-2DP, Methotrexate, mutated antibody conjugates
    68-76-8DP, Trenimon, mutated antibody conjugates
    9013-20-1DP, Streptavidin, mutated antibody conjugates
    10098-91-6DP, Yttrium-90, mutated antibody conjugates,
    biological studies 14133-76-7DP, Technetium-99, mutated antibody
    conjugates, biological studies
                                    14378-26-8DP, Rhenium-188,
    mutated antibody conjugates, biological studies
    15750-15-9DP, Indium-111, mutated antibody conjugates,
    biological studies
                        15760-04-0DP, Silver-111, mutated antibody
    conjugates, biological studies 23214-92-8DP, mutated
    antibody conjugates 25322-68-3DP, maleimide
    deriv, mutated antibody conjugates 73902-98-4DP,
    conjugate with cyanomorpholino anthracycline, mutated
    antibody conjugates
                         88254-07-3DP, conjugate
    with bromoacetic acid hydrazide, mutated antibody
    conjugates 88254-07-3DP, mutated antibody
                113440-58-7DP, Calicheamicin, mutated
    conjugates
     antibody conjugates 114797-28-3DP, Esperamicin,
    mutated antibody conjugates 189035-04-9DP,
    conjugate with cyanomorpholino anthracycline, mutated
```

antibody conjugates 189035-05-0DP, mutated

antibody conjugates

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(recombinant antibodies with multiple disulfide bonds

for immunoconjugate preparation)

TT 7440-42-8D, Boron, addends, immunoconjugates containing, biological studies 10028-17-8D, Tritium, immunoconjugates containing, biological studies 10043-49-9D, Gold-198, immunoconjugates containing, biological studies 10043-66-0D, Iodine-131, immunoconjugates containing, biological studies 12585-85-2D, Positron, immunoconjugates containing 14119-09-6D, Gallium-67, immunoconjugates containing, biological studies 14158-31-7D, Iodine-125, immunoconjugates containing, biological studies 14596-37-3D, Phosphorus-32, immunoconjugates containing, biological studies 14762-75-5D, Carbon-14, immunoconjugates containing, biological studies 14998-63-1D, Rhenium-186, immunoconjugates containing, biological studies 15715-08-9D, Iodine-123, immunoconjugates containing, biological studies 15755-39-2D, Astatine-211, immunoconjugates containing, biological studies 15757-86-5D, Copper-67, immunoconjugates containing, biological studies 15757-86-5D, Copper-67, immunoconjugates containing, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (recombinant antibodies with multiple disulfide bonds

for impure and installed a second to a

for immunoconjugate preparation)

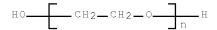
IT <u>25322-68-3DP</u>, maleimide deriv, mutated <u>antibody</u> conjugates

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(recombinant <u>antibodies</u> with multiple disulfide <u>bonds</u> for immunoconjugate preparation)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 25 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:44674 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 126:65386

TITLE: Preparation of antitumor toxin

complexes

INVENTOR(S): Suzawa, Toshiyuki; Yamasaki, Motoo; Nagamura, Satoru;

Saito, Hiromitsu; Ohta, So; Hanai, Nobuo

PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
-----WO 9635451 A1 19961114 WO 1996-JP1241 19960510 <-W: CA, JP, US

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

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CA 2220339
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    EP 867190
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                               19980930
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        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, FI
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                        В1
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                                                            A 19950510 <--
PRIORITY APPLN. INFO.:
                                           JP 1995-111933
                                           WO 1996-JP1241
                                                             W 19960510 <--
                                           US 1997-981416 A3 19971110 <--
    Entered STN: 22 Jan 1997
ΕD
     A toxin complex is prepared by bonding a residue of a compound having target
AB
     cell affinity and a residue of toxin via a spacer containing a polyalkylene
     glycol and a dipeptide. The compds. which show cell affinity include tumor-
     specific antibody and its fragments. For example, HO- PMG-Ala-Val-adriamycin
     reaction products with NL-1 (acute lymphocytic leukemia antibody) was prepared
     and its antiproliferative effect against Daudi Burkitt's lymphoma cells was
     tested.
    ICM A61K039-44
IC
    ICS C07K017-06
CC
    63-5 (Pharmaceuticals)
    Section cross-reference(s): 1
    antitumor antibody spacer complex prepn; adriamycin
ST
    antibody PEG dipeptide complex prepn
    Antitumor agents
ΙT
    Drug targeting
        (preparation of antitumor toxin complex via spacer
        containing polyalkylene glycol and dipeptide)
ΙT
    Polyoxyalkylenes, reactions
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of antitumor toxin complex via spacer
        containing polyalkylene glycol and dipeptide)
ΙT
    Antibodíes
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (reaction products, with neoplasm inhibitors; preparation of antitumor
       toxin complex via spacer containing polyalkylene glycol
       and dipeptide)
    20830-81-3DP, Daunorubicin, reaction products with PMG
ΙT
    -Ala-Val-OH derivative and antibody 25316-40-9DP, Adriamycin,
    reaction products with PMG-Ala-Val-OH derivative and
    antibody 185218-46-6DP, reaction products with adriamycin and
             185218-48-8DP, reaction products with adriamycin and
    antibody
    antibody 185218-50-2DP, reaction products with adriamycin and
              185218-52-4DP, reaction products with PEG
    -Ala-Val-OH derivative and antibody 185218-65-9DP, reaction
    products with PEG-Ala-Val-OH derivative and antibody
    185218-74-0DP, reaction products with KM-641 antibody
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of antitumor toxin complex via spacer
       containing polyalkylene glycol and dipeptide)
    100-02-7, 1-Hydroxy-4-nitrobenzene, reactions 100-39-0, Benzyl bromide
    106-93-4, 1,2-Dibromoethane 107-09-5, 2-Bromoethylamine 109-64-8,
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1,3-Dibromopropane 134-96-3, 4-Hydroxy-3,5-dimethoxybenzaldehyde 501-53-1, Benzyloxycarbonyl chloride 537-73-5 2812-46-6 2899-60-7

3401-36-3 6959-47-3, Picolyl chloride hydrochloride 13518-40-6

25322-68-3 146940-68-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of antitumor $\ensuremath{\texttt{coxin}}$ $\ensuremath{\texttt{complex}}$ via spacer

containing polyalkylene glycol and dipertide)

IT 6527-32-8P 16980-82-8P 26403-74-7P, <u>Polyethylene</u>

glycol monobenzyl ether 29375-30-2P 53089-97-7P 53844-02-3P

 60166-68-9P
 62054-92-6P
 185218-31-9P
 185218-34-2P
 185218-38-6P

 185218-42-2P
 185218-44-4P
 185218-52-4P
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 185218-68-2P

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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

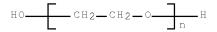
(preparation of antitumor toxin complex via spacer containing polyalkylene glycol and dipeptide)

IT 25322-68-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of antitumor toxin complex via spacer containing polyalkylene glycol and dipeptide)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 26 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:494753 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 125:151189

TITLE: Therapeutic conjugates of toxins

and drugs for cancer and infection treatment

INVENTOR(S): Hansen, Hans J.; Griffiths, Gary L.; Lentine-jones,

Anastasia; Goldenberg, David M.

PATENT ASSIGNEE(S): Immunomedics, Inc., USA

SOURCE: U.S., 7 pp., Cont.-in-part of U.S. 5,328,679.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|------------|
| | | | | |
| US 5541297 | A | 19960730 | US 1992-882177 | 19920511 < |
| US 5061641 | А | 19911029 | US 1988-176421 | 19880401 < |
| US 5128119 | A | 19920707 | US 1989-392280 | 19890810 < |
| CA 1335267 | С | 19950418 | CA 1989-615461 | 19890929 < |
| AU 9059249 | A | 19910108 | AU 1990-59249 | 19900611 < |
| AU 647028 | B2 | 19940317 | | |
| JP 05500800 | T | 19930218 | JP 1990-509837 | 19900611 < |
| IL 113168 | A | 19960723 | IL 1990-113168 | 19900611 < |
| ZA 9004521 | A | 19910327 | ZA 1990-4521 | 19900612 < |
| AU 9065214 | A | 19910418 | AU 1990-65214 | 19900918 < |
| AU 640698 | В2 | 19930902 | | |

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JP 04505455
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                                       19920317 FI 1992-1146
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      JP 08500084 T 19960109 JP 1993-518731
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      CA 2118032
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                                     19980929 CA 1993-2118032
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          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
                                   20030915 AT 1993-910988
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US 1989-364373 B2 19890612 <--
US 1989-392280 A2 19890810 <--
US 1989-408241 B2 19890918 <--
US 1990-518707 B2 19900507 <--
US 1990-581913 B2 19900913 <--
US 1991-760466 A2 19910917 <--
IL 1990-94690 A3 19900611 <--
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US 1992-882177 A 19920511 <--
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PRIORITY APPLN. INFO.:
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EDEntered STN: 20 Aug 1996

Conjugates useful in cancer or infectious disease therapy comprise a drug or AΒ modified towin (a native towin devoid of a functioning receptor-binding domain) and a protein which reacts with a substance associated with a targeted cell or pathogen. The targeted substance internalizes the conjugate into the cell cytoplasm, and the drug or toxin kills the cell. The protein prior to conjugation has ≥1 SH group which becomes a site for conjugation to the toxin or drug. Thus, the F(ab')2 fragment of murine anti-B cell lymphoma antibody LL-2 was conjugated with an activated PEG- peptide derivative linker, and the product was reduced with DTT and reacted with an activated Pseudomonas exotoxin which was modified by removal of the Ia binding domain; the resulting therapeutic agent was purified by gel chromatog.

ICM C07K016-46

ICS A61K039-395

INCL 530391700

63-6 (Pharmaceuticals)

toxin immunoconjugate cancer infection therapy ST

ΙT Leukemia

> (antibodies to cells of, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

ΙT Carcinoma Lymphoma Myeloma

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10/565,331
     Protozoa
     Sarcoma
        (antibodies to, conjugates with drugs or
        toxins; therapeutic conjugates of toxins
        and drugs for cancer and infection treatment)
ΙT
    Pseudomonas
        (exotoxin of, modified, conjugate with antibody;
        therapeutic conjugates of toxins and drugs for
        cancer and infection treatment)
TT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (receptor-binding domain-deficient, antibody
        conjugates; therapeutic conjugates of toxins
        and drugs for cancer and infection treatment)
ΙT
     Linking agents
     Neoplasm inhibitors
        (therapeutic conjugates of toxins and drugs for
        cancer and infection treatment)
ΙT
     Antibodies
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (to protozoa or tumor-associated antigens, conjugates with drugs
        or toxins; therapeutic conjugates of toxins
        and drugs for cancer and infection treatment)
     Proteins, specific or class
ΤТ
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (PAP (pokeweed antiviral protein), conjugates, with
        antibody; therapeutic conjugates of toxins
        and drugs for cancer and infection treatment)
     Polysaccharides, biological studies
ΤТ
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (conjugates, with antibody and drug or
        toxin; therapeutic conjugates of toxins and
        drugs for cancer and infection treatment)
ΙT
     Abrins
       Ricins
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (conjugates, with antibody; therapeutic
        conjugates of toxins and drugs for cancer and
        infection treatment)
ΤТ
     Toxins
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (diphtheria, conjugates, with antibody; therapeutic
        conjugates of toxins and drugs for cancer and
        infection treatment)
```

(endocytosis, therapeutic conjugates of toxins and

drugs for cancer and infection treatment)

ΙT

ΙT

Toxins

Biological transport

137

ΙT

ΙT

ΙT

ΙT

ΙT

ΙT

ΤТ

ΤT

ΙT

ΤТ

infection treatment)

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (exo-, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment) Sialoglycoproteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (gp120env, of HIV, recombinant monoclonal antibody to, Fab' fragment of, conjugate with puromycin; therapeutic conjugates of toxins and drugs for cancer and infection treatment) Virus, animal (human immunodeficiency, infection with, treatment of; therapeutic conjugates of toxins and drugs for cancer and infection treatment) Pharmaceutical dosage forms (immunoconjugates, therapeutic conjugates of toxins and drugs for cancer and infection treatment) Neoplasm inhibitors (lymphoma, therapeutic conjugates of toxins and drugs for cancer and infection treatment) Peptides, biological studies RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (lysine-containing, <u>linkers</u>; therapeutic <u>conjugates</u> of toxins and drugs for cancer and infection treatment) Alcohols, biological studies RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (polyhydric, conjugates, with antibody and drug or toxin; therapeutic conjugates of toxins and drugs for cancer and infection treatment) Proteins, specific or class RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (saporins, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment) Antigens RL: BSU (Biological study, unclassified); BIOL (Biological study) (tumor-associated, antibodies to, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment) Toxins RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) $(\alpha-, conjugates, with antibody; therapeutic$ conjugates of toxins and drugs for cancer and infection treatment) 75037-46-6, Gelonin RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and

541-59-3, Maleimide ΙT

> RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(linker; therapeutic conjugates of toxins

and drugs for cancer and infection treatment)

ΙT 53-79-2D, Puromycin, immunoconjugates 66-81-9D, Cycloheximide, immunoconjugates 9001-99-4D, RNase, immunoconjugates 9004-54-0D,

Dextran, conjugates with antibody and drug or

toxin 25322-68-3D, PEG, conjugates with antibody and drug or toxin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic conjugates of toxins and drugs for

cancer and infection treatment)

25322-68-3D, PEG, conjugates with

antibody and drug or toxin

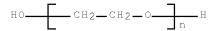
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic conjugates of toxins and drugs for

cancer and infection treatment)

25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 27 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1994:62291 HCAPLUS Full-text

DOCUMENT NUMBER: 120:62291

TITLE: Therapeutic conjugates of toxins

and drugs

INVENTOR(S): Hansen, Hans J.; Griffiths, Gary L.; Lentine-Jones,

Anastasia; Goldenberg, David M.

Immunomedics, Inc., USA PATENT ASSIGNEE(S): PCT Int. Appl., 29 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE |
|--|---------------------------|---|------------|
| WO 9323062 W: CA, JP | A1 19931125 | WO 1993-US4136 | 19930507 < |
| | A 19960730 | GB, GR, IE, IT, LU, MC, US 1992-882177 EP 1993-910988 | · |
| R: AT, BE, CH, JP 08500084 JP 2942356 AT 248858 | T 19960109 B2 19990830 | 0000 0-070- | |

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PRIORITY APPLN. INFO.:
                                              US 1992-882177 A 19920511 <--
                                              US 1988-176421
                                                                 A1 19880401 <--
                                              US 1989-364373
                                                                 B2 19890612 <--
                                              US 1989-392280
                                                                 A2 19890810 <--
                                              US 1989-408241
                                                                  B2 19890918 <--
                                              US 1989-408241 B2 19890918 <--
US 1990-518707 B2 19900507 <--
US 1990-581913 B2 19900913 <--
US 1991-760466 A2 19910917 <--
WO 1993-US4136 W 19930507 <--
     Entered STN: 05 Feb 1994
ED
AΒ
     A conjugate useful in cancer or infectious disease therapy is a drug or a
     modified native toxin devoid of a functioning receptor binding domain,
     conjugated to a protein which reacts with a substance associated with a
     targeted cell or pathogen. The targeted substance (e.g. intracellular
     antigen, receptor, viral antigen) internalizes the conjugate into the cell
     cytoplasm, thus killing the cell. The protein prior to conjugation has ≥1 SH
     group which becomes a site for conjugation to the toxin or drug. The protein
     may be a hormone, lymphokine, growth factor, albumin, enzyme, immunomodulator,
     receptor, antibody, etc. The conjugate may be coupled with a polysaccharide,
     polyol, or PMG to make it less immunogenic. Thus, an antibody to a tumor-
     associated antigen was reduced, converted to the F(&b')2 fragment, and coupled
     to (1) a peptide linker- PEG conjugate and (2) a modified Pseudomonas exotoxin
     lacking the Ia binding domain for treatment of chemotherapy-refractory B-cell
     lymphoma.
IC
     ICM A61K037-00
     ICS A61K037-04; C07K015-28; C07K015-14
CC
     63-6 (Pharmaceuticals)
     toxin conjugate cancer infection treatment;
     immunoconjugate toxin cancer treatment
ΙT
     Cytoplasm
     Microorganism
     Virus, animal
        (antigen of, drug or toxin conjugate with protein
        targeted to, for cancer and infection treatment)
     Immunomodulators
ΙT
     Animal growth regulators
       Antibodies
     Enzvmes
     Hormones
       Immunoglobulins
     Lymphokines and Cytokines
     Receptors
     RL: BIOL (Biological study)
        (conjugates with drugs and toxins, for cancer and
        infection treatment)
ΙT
     Abrins
       Ricins
       Toxins
     RL: BIOL (Biological study)
        (conjugates with proteins, for cancer and infection
        treatment)
ΙT
     Antigens
     RL: BIOL (Biological study)
        (drug or toxin conjugate with protein targeted to,
        for cancer and infection treatment)
ΙT
     Pseudomonas
        (exotoxin of, conjugates with proteins, for cancer and
        infection treatment)
    Mercapto group
ΙT
        (of protein, drug or toxin conjugation to, for
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cancer and infection treatment)
ΙT
     Bactericides, Disinfectants, and Antiseptics
     Neoplasm inhibitors
     Protozoacides
     Virucides and Virustats
        (protein conjugates, for targeted therapy)
ΙT
    Leukemia
        (tumor-associated antigen of cells of, drug or toxin
        conjugate with protein targeted to)
     Carcinoma
ΙT
     Lymphoma
     Myeloma
     Sarcoma
        (tumor-associated antigen of, drug or toxin conjugate
        with protein targeted to)
ΙT
     Neoplasm inhibitors
        (B-cell leukemia, protein conjugates, for targeted therapy)
ΙT
     Neoplasm inhibitors
        (B-cell lymphoma, protein conjugates, for targeted therapy)
ΙT
     Proteins, specific or class
     RL: BIOL (Biological study)
        (PAP (pokeweed antiviral protein), conjugates with proteins,
        for cancer and infection treatment)
ΙT
     Polysaccharides, compounds
     RL: BIOL (Biological study)
        (conjugates, with drugs and proteins and toxins,
        for cancer and infection treatment)
     Albumins, compounds
ΤТ
       Peptides, compounds
     Proteins, specific or class
     RL: BIOL (Biological study)
        (conjugates, toxins*** , for cancer and infection
        treatment Peptides,)
ΙT
     Toxins
     RL: BIOL (Biological study)
        (diphtheria, conjugates with proteins, for cancer and
        infection treatment)
     Proteins, specific or class
ΤТ
     RL: PRP (Properties)
        (disulfide-containing, reduction and conjugation of, with drug or
        toxin for cancer and infection treatment)
ΙT
     Toxins
     RL: BIOL (Biological study)
        (exo-, conjugates with proteins, for cancer and infection
        treatment)
     Sialoglycoproteins
ΤТ
     RL: BIOL (Biological study)
        (gp120env, of HIV, monoclonal antibody to, conjugates
        with puromycin, for infection treatment)
ΙT
     Virus, animal
        (human immunodeficiency, infection with, treatment of, with monoclonal
        antibody-puromycin conjugate)
ΙT
     Pharmaceutical dosage forms
        (immunoconjugates, with proteins, for cancer and infection treatment)
ΙT
     Pharmaceutical dosage forms
        (immunotoxins, for cancer and infection treatment)
ΙT
     Neoplasm inhibitors
        (lymphoma, protein conjugates, for targeted therapy)
ΙT
     Antibodies
     RL: BIOL (Biological study)
```

(monoclonal, conjugates with drugs and toxins, for cancer and infection treatment)

IT Alcohols, compounds

RL: BIOL (Biological study)

(polyhydric, conjugates, with drugs and proteins and

toxins, for cancer and infection treatment)

IT Proteins, specific or class
 RL: BIOL (Biological study)

(saporins, conjugates with proteins, for cancer and infection treatment)

IT Antigens

RL: BIOL (Biological study)

(tumor-associated, drug or toxin conjugate with

protein targeted to, for cancer and infection treatment)

IT Toxins

RL: BIOL (Biological study)

 $(\alpha-, conjugates)$ with proteins, for cancer and infection treatment)

IT 53-79-2D, Puromycin, conjugates with proteins 66-81-9D, Cycloheximide, conjugates with proteins 9001-99-4D, Ribonuclease, conjugates with proteins 9004-54-0D, Dextran,

conjugates with drugs and proteins and toxins

25322-68-3D, PEG, conjugates with drugs and proteins and toxins 75037-46-6D, Gelonin, conjugates

with proteins

RL: BIOL (Biological study)

(for cancer and infection treatment)

IT 25322-68-3D, PEG, conjugates with drugs and

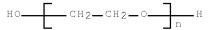
proteins and toxins

RL: BIOL (Biological study)

(for cancer and infection treatment)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 28 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1992:101914 HCAPLUS Full-text

DOCUMENT NUMBER: 116:101914

ORIGINAL REFERENCE NO.: 116:17125a,17128a

TITLE: Antibody-albumin complexes for in

vivo target localization for imaging and therapy

INVENTOR(S): Line, Bruce R.; Weber, Peter B. PATENT ASSIGNEE(S): Albany Medical College, USA

SOURCE: PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
WO 9118020
                         Α1
                               19911128 WO 1991-US3512
                                                                   19910517 <--
         W: AU, CA, FI, JP, NO, SU
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
     US 5216130
                         Α
                               19930601
                                         US 1990-525258
                                                                   19900517 <--
     AU 9181081
                         Α
                               19911210
                                           AU 1991-81081
                                                                   19910517 <--
                                19940727
     EP 607126
                         Α1
                                           EP 1991-912955
                                                                   19910517 <--
        R: DE, FR, GB, IT, NL
PRIORITY APPLN. INFO.:
                                           US 1990-525258 A 19900517 <--
                                           WO 1991-US3512
                                                               A 19910517 <--
     Entered STN: 20 Mar 1992
ED
AΒ
     Antibodies to a specific targeting mol. are linked via polysaccharide or
     polymer spacer arms to rapidly cleared, 99mTc-labeled submicron-sized, albumin
     microspheres to form a labeled macromol. complex for use in localizing targets
     within the body. These labeled albumin microspheres may be used to detect a
     variety of sites of clin. interest using noninvasive external imaging devices
     and may be employed to carry therapeutic agents to these sites. Thus, albumin
     microspheres were linked to diaminopolyethylene glycol and the amino termini
     were derivatized with S-acetylmercaptosuccinic anhydride. To this was added
     5,5'-dithiobis(2-nitrobenzoic acid) to activate and protect the microsphere SH
     moieties. Antifibrin antibody Fab' fragment was added to the microsphere
     suspension and reacted at room temperature for 1 h. The complex then was
     exposed to stannous saccarate, washed, and lyophilized. Prior to use, 99mTc
     was added in N-purged isotonic saline for i.v. administration for localizing
     e.g. fibrin deposition.
     ICM C07K015-14
IC
     ICS C07K017-08; C07K017-10; A01N031-14; A61K031-075; A61K031-715;
          A61K037-04; A61K039-44; A61K043-00; A61K049-00; C03B037-02;
          C07C043-11; C07C217-42; C12N001-02; C07F013-00; G01N033-534
CC
     8-9 (Radiation Biochemistry)
     albumin sensitization labeling immunoscintig; technetium 99m
     antibody albumin scintig
ΙT
     Bacteria
     Pharmaceuticals
     Virus
        (antibody to, complexes with albumin and other
        substances, preparation of, for immunotargeting)
ΙT
     Toxins
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (antibody to, complexes with albumin and other
        substances, preparation of, for immunotargeting)
ΙT
     Thrombolytics
        (complexes with albumins and other substances, preparation of, for
        immunotargeting)
ΙT
     RL: PEP (Physical, engineering or chemical process); PROC (Process)
        (deposition of, localization of, by immunoscintiq., macromol.
        complexes for)
ΙT
     Lung, disease
        (embolus, localization of, by immunoscintigraphy, macromol.
        complexes for)
ΙT
     Albumins, uses
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (microspheres, technetium-99m-labeled, complexes with
        antibody, preparation of, for immunoscintig.)
ΙT
     Antibodíes
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (to fibrin, complexes with albumin microspheres,
        technetium-99m-labeled, preparation of, for immunoscintig.)
     Thrombus and Blood clot
ΙT
        (venous, localization of, by immunoscintigraphy, macromol.
```

complexes for)

ΙT Polymers, compounds

Polysaccharides, compounds

RL: SPN (Synthetic preparation); PREP (Preparation)

(complexes, with albumins and other substances, preparation of, for immunoscintiq.)

ΙT Pharmaceutical dosage forms

(immunoconjugates, antibody-albumin macromol.

complexes)

7772-99-8, Tin chloride, biological studies ΙT

RL: BIOL (Biological study)

(in technetium-99m-labeled macromol. complex preparation for

immunoscintia.)

ΙT 14133-76-7DP, albumin-antibody complex labeled with

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of metastable, for immunoscintiq.)

9004-54-0DP, Dextran, complexes with albumins and other

ΙT substances 24991-53-5DP, macromol. complexes with

25322-68-3DP, complexes with albumins and other

substances

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, for immunoscintig.)

ΙT 25322-68-3DP, complexes with albumins and other

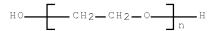
substances

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, for immunoscintig.)

25322-68-3 HCAPLUS RN

CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 29 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:581372 HCAPLUS Full-text

DOCUMENT NUMBER: 115:181372

ORIGINAL REFERENCE NO.: 115:30960h,30961a

Tumor-specific, cell surface-binding TITLE:

monoclonal antibodies

Freedman, Ralph S.; Ionnides, Constantin G.; INVENTOR(S):

Tomasovic, Barbara J.; Patenia, Rebecca S.

PATENT ASSIGNEE(S): University of Texas System, USA

SOURCE: PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO | KIN | D | DATE | | | APPLICATION NO. | | | | | DATE | | | | |
|------------------|---------|-----|------|-----|------|-----------------|-----|------|-------|-------|------|-----|-----|-------|-------|
| T | | - | 7.1 | _ | 1001 | 0607 | | | | | | | | 0001 | 010 |
| WO 910913 | 35 | | AI | | 1991 | 0627 | | MO T | 990-1 | JS /4 | 96 | | Τ. | 9901. | 218 < |
| $W: \mathcal{P}$ | AT, AU, | BB, | BG, | BR, | CA, | CH, | DE, | DK, | ES, | FI, | GB, | HU, | JP, | KΡ, | KR, |
| I | LK, LU, | MC, | MG, | MW, | NL, | NO, | RO, | SD, | SE, | SU, | US | | | | |
| RW: A | AT, BE, | BF, | ВJ, | CF, | CG, | CH, | CM, | DE, | DK, | ES, | FR, | GA, | GB, | GR, | IT, |
| I | LU, ML, | MR, | NL, | SE, | SN, | TD, | ΤG | | | | | | | | |

| | 10/565,331 | | | | | | |
|------|---|--|--|--|--|--|--|
| PRI(| AU 9171658 A 19910718 AU 1991-71658 19901218 < US 5434076 A 19950718 US 1992-862768 19920618 < US 1989-452733 A2 19891218 < WO 1990-US7496 A 19901218 < | | | | | | |
| ED | Entered STN: 01 Nov 1991 | | | | | | |
| AB | A process is provided for the preparation and use of gynecol. tumor diagnostic and antitumor agents. The process involves the pretreatment of a patient with a viral oncolyzate and the establishment of B-cell human hybridomas capable of producing human monoclonal antibodies (MAbs) reactive with cell-surface epitopes of human gynecol. tumors. Also disclosed are methods for using the MAbs in the diagnosis and treatment of gynecol. malignancies. Two especially useful gynecol. hybridoma lines are disclosed which are derived from the process of the invention. Thus, cells from the lymph node of a patient with mucinous ovary carcinoma were fused with SPAZ4 cells (a heterohybridoma of mouse myeloma and human peripheral blood lymphocytes) using PEG 1500 to form the AC hybridoma cell line. The reactivity of human anti-ovarian surface-reacting MAb AC6C3 was tested with ovarian carcinoma cells and with a variety of nonovarian cell lines. MAb AC6C3 was also tested on cryostat sections of epithelial ovarian carcinoma specimens and compared to similar sections of other malignant as well as nonmalignant tissues. Immunopptn. with MAb AC6C3 identified a 32-kD band expressed on the surface of SKOV3 (ovarian carcinoma) | | | | | | |
| | cells. | | | | | | |
| IC | ICM C12P021-08 | | | | | | |
| CC | ICS G01N033-574; A61K039-395; C12N005-00 15-3 (Immunochemistry) | | | | | | |
| ST | monoclonal <u>antibody</u> tumor surface antigen; gynecol tumor | | | | | | |
| | monoclonal antibody; cervix tumor cell monoclonal antibody; ovary tumor cell monoclonal antibody; ovary tumor cell monoclonal antibody; B cell human hybridoma | | | | | | |
| IT | Animal cell line (2774, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) | | | | | | |
| IT | Animal cell line (431, monoclonal <u>antibody</u> to gynecol. tumor cell surface epitope reactivity with) | | | | | | |
| IT | Animal cell line (962, monoclonal <u>antibody</u> to gynecol. tumor cell surface epitope reactivity with) | | | | | | |
| IT | Animal cell line (CR, hybridoma, production of, with viral oncolyzate, for production of monoclonal antibody to gynecol. tumor cell surface epitope) | | | | | | |
| ΙT | Animal cell line (CaOV3, monoclonal antibody to surface epitope of) | | | | | | |
| ΙT | Animal cell line | | | | | | |
| | (GB, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) | | | | | | |
| ΙΤ | Animal cell line (MD435, monoclonal <u>antibody</u> to gynecol. tumor cell surface epitope reactivity with) | | | | | | |
| IT | Animal cell line (MD436, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) | | | | | | |
| ΙT | Animal cell line (MDAH 2774, monoclonal antibody to surface epitope of) | | | | | | |
| IT | Animal cell line (SPAZ4, in hybridoma production for production of monoclonal antibody to gynecol tumor cell surface epitope) | | | | | | |

to gynecol. tumor cell surface epitope)

(conjugates with monoclonal antibody to gynecol.

RL: BIOL (Biological study)

ΙT

Toxins

145

tumor cell surface epitope, for targeting therapy) ΙT Animal cell line (gynecol. tumor, monoclonal antibody to surface epitope of) ΙT Neoplasm (gynecol., monoclonal antibody to surface epitope of cell of) ΙT Animal cell line (human cell-derived myeloma, in hybridoma production for production of monoclonal antibody to gynecol. tumor cell surface epitope) ΙT Lymph gland (lymphocyte of, for hybridoma production in production of monoclonal antibody to gynecol. tumor cell surface epitope) Neoplasm inhibitors ΙT (monoclonal antibody to gynecol. tumor cell surface epitope as, for gynecol. tumor) Melanoma ΙT Sarcoma (monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) Hybridoma ΙT (of lymphocyte of peripheral blood or lymph node or bone marrow, in production of monoclonal antibody to gynecol. tumor cell surface epitope) ΙT (oncolyzate, in production of monoclonal antibody to gynecol. tumor cell surface epitope) Animal cell line ΙT (A375, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) Animal cell line ΙT (A431, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) Animal cell line ΙT (AC, hybridoma, production of, for production of monoclonal antibody to gynecol. tumor cell surface epitope) Animal cell line ΙT (Daudi, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) ΙT Animal cell line (JURKAT, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) Animal cell line ΙT (K562, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) ΙT Animal cell line (MRC-5, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) ΙT Virus, animal (Newcastle disease, gynecol. tumor cell infected with, oncolyzate from, in production of monoclonal antibody to gynecol. tumor cell surface epitope) ΙT Animal cell line (SK-UT-1, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) ΙT Animal cell line (SKOV3, monoclonal antibody to surface epitope of) Animal cell line ΙT (SW48, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with) ΙT Animal cell line (SW480, monoclonal antibody to gynecol. tumor cell surface

10/565,331 epitope reactivity with) ΙT Animal cell line (SW756, monoclonal antibody to surface epitope of) ΙT Ovary, neoplasm (carcinoma, cell line of, monoclonal antibody to surface epitope of) ΙT Uterus, neoplasm (cervix, carcinoma, cell line of, monoclonal antibody to surface epitope of) ΙT RL: BIOL (Biological study) (conjugates, A chain of, with monoclonal antibody to gynecol. tumor cell surface epitope) Virus, animal ТТ (influenza A, Puerto Rico, in production of monoclonal antibody to gynecol. tumor cell surface epitope) ΙT Lymphokines and Cytokines RL: BIOL (Biological study) (interleukin 2, viral oncolyzate combined with, in production of monoclonal antibody to gynecol. tumor cell surface epitope) ΙT Antibodies RL: BIOL (Biological study) (monoclonal, to gynecol. tumor cell surface epitope) ΙT Antigens RL: BIOL (Biological study) (surface, monoclonal antibodies to, of gynecol. tumor cell) L147 ANSWER 30 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN 1991:670168 HCAPLUS Full-text ACCESSION NUMBER: DOCUMENT NUMBER: 115:270168 ORIGINAL REFERENCE NO.: 115:45653a,45656a Monoclonal antibody-targeted superantigens: TITLE: a different class of antitumor agents AUTHOR(S): Dohlsten, Mikael; Hedlund, Gunnar; Aakerblom, Eva; Lando, Peter A.; Kalland, Terje CORPORATE SOURCE: Kabi Pharm. Ther., Lund, S-223 63, Swed. SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1991), 88(20), 9287-91 CODEN: PNASA6; ISSN: 0027-8424 DOCUMENT TYPE: Journal English LANGUAGE: ED Entered STN: 27 Dec 1991 The bacterial superantiqen staphylococcal enterotoxin A (SEA) directs cytotoxic T-lymphocytes (CTLs) expressing particular sequences of the T-cell receptor (TCR) β -chain to lyse tumor cells expressing major histocompatibility complex (MHC) class II mols., which serve as receptors for SEs. Chemical conjugates of SEA and the colon carcinoma-reactive monoclonal antibodies (mAbs) C215 or C242 mediate T-cell dependent destruction of colo carcinoma cells lacking MHC class II mols. SEA was covalently linked to the mAbs C215 and C242 via a PEG-based hydrophilic spacer. The C215-SEA conjugate targeted CD4+ as well as CD8+ CTLs to lyse a panel of colon carcinoma cells lacking MHC class II mols. T-cell recognition of mAb-SEA conjugates was SEA-specific, since SEB-selective T-cell lines with potent cytotoxic activity towards Raji cells coated with SEB did not respond to the C215-SEA conjugate. Unconjugated

SEA did not induce T-cell lysis of MHC class II- colon carcinoma cells by efficiently directed CTLs against MHC class II+ Raji cells and certain interferon-treated MHC class II+ colon carcinoma cells. SEA-mAb conjugates may retain the SEA-related selectivity for certain TCR β -chain variable region

CC

ST

ΙT

ΙT

ΙT

ΙT

ΤT

ED

AB

 $(V\beta)$ sequences but, in contrast to unconjugated SEA, may mediate the TCR interaction in a MHC class IIO-independent manner. The cytotoxic activity mediated by C215-SEA and C242-SEA conjugates was blocked by excess of C215 mAb and C242 mAb, resp., showing that the specificity in the targeting of mAb-SEA conjugates is defined by the antigen reactivity of the mAb. Bacterial superantigens may be successfully conjugated to mAb with preserved T-cellactivating capacity. The circumvention of MHC class II binding of SEs by conjugation to mAb suggests that such conjugates may find general application as antitumor agents, taking advantage of extreme T-cell-activating potency of superantiqens. 1-6 (Pharmacology) Section cross-reference(s): 63 bacterial enterotoxin antibody conjugate antitumor targeting; T lymphocyte enterotoxin antibody conjugate antitumor Lymphocyte (T-, enterotoxin A antibody conjugate activation of, major histocompatibility antigen class II expression and antitumor effects in colon carcinoma in relation to) Neoplasm inhibitors (carcinoma, enterotoxin A antibody conjugates as, in colon, T-lymphocyte activation by) RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (entero-, antibody conjugate of staphylococcal, T-lymphocyte activation by and antitumor action of) Antigens RL: BIOL (Biological study) (histocompatibility, class II, of colon carcinoma, enterotoxin A antibody conjugate antitumor effects in relation to expression of) Antibodíes RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (monoclonal, staphylococcal enterotoxin A conjugate with, T-lymphocyte activation by and antitumor action of) L147 ANSWER 31 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1992:100866 HCAPLUS Full-text 116:100866 DOCUMENT NUMBER: ORIGINAL REFERENCE NO.: 116:16909a, 16912a Crystal parameters and molecular replacement of an TITLE: anticholera toxin peptide complex Shoham, Menachem; Proctor, Peter; Hughes, Diane; AUTHOR(S): Baldwin, Eric T. Sch. Med., Case West. Reserve Univ., Cleveland, OH, CORPORATE SOURCE: 44106, USA Proteins: Structure, Function, and Genetics (SOURCE: 1991), 11(3), 218-22 CODEN: PSFGEY; ISSN: 0887-3585 DOCUMENT TYPE: Journal LANGUAGE: English Entered STN: 20 Mar 1992 TE33 is a Fab fragment of a monoclonal antibody raised against a 15-residue long peptide (CTP3), corresponding in sequence to residues 50-64 of the cholera toxin B subunit. Crystals of the complex between TE33 and CTP3 have

been grown from 20% (w/v) polyethylene glycol-8000 at pH 4.0. The crystals are orthorhombic, space group P21212, with unit cell dimensions a = 104.15, b

= 110.61, and c = 40.68 Å. X-ray data have been collected to a resolution of 2.3 Å. The asym. unit contains one mol. of Fab and one mol. of CTP3. The presence of CTP3 has been demonstrated by fluorescence quenching of the dissolved crystal after x-ray data collection. A mol. replacement solution was found based on the coordinates of DB3, an antiprogesterone Fab fragment.

CC 4-5 (Toxicology)

ST anticholera toxin peptide complex crystal structure

ΙT Crystal structure

> (of cholera toxin B-subunit 15-amino acid-long peptide complex with monoclonal antibody to

cholera toxin B-subunit 15-amino acid-long peptide)

ΙT Antibodies

RL: BIOL (Biological study)

(monoclonal, to cholera toxin B-subunit peptide,

cholera toxin B-subunit peptide complexes

with, crystal structure and mol. replacement parameters of)

89157-28-8D, complexes with TE33 ΤТ

RL: BIOL (Biological study)

(crystal structure and mol. replacement parameters of)

L147 ANSWER 32 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1990:137344 HCAPLUS Full-text

DOCUMENT NUMBER: 112:137344

ORIGINAL REFERENCE NO.: 112:23221a,23224a

Human monoclonal anti-human immunodeficiency virus TITLE:

type 1 (anti-HIV-1) antibodies

Katinger, Hermann; Von Baehr, Ruediger; Jungbauer, INVENTOR(S):

Alois; Porstmann, Tomas; Steindl, Franz J.; Grunow,

Roland; Buchacher, Andrea

PATENT ASSIGNEE(S): CL Pharma A.-G., Austria

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PA] | ENT : | NO. | | | KINI |) | DATE | | API | PLICA: | TION NO | • | | DATE | |
|-------|------|------------|----------------|------|-----|------|----|-------|------|--------|--------|---------|---|----|----------|---|
| | WO | 8904 W: | 370 JP, | US | | A1 | | 1989 | 0518 | WO | 1988- | -EP1072 | | | 19881114 | < |
| | | RW: | ΑT, | BE, | CH, | DE, | FR | , GB, | ΙΤ, | LU, N | L, SE | | | | | |
| | ΕP | 3551 | 40 | | | A1 | | 1990 | 0228 | EP | 1989- | -900809 | | | 19881114 | < |
| | ΕP | 3551 | 40 | | | В1 | | 1996 | 0320 | | | | | | | |
| | | R: | ΑT, | BE, | CH, | DE, | FR | , GB, | ΙΤ, | LI, LU | J, NL, | , SE | | | | |
| | JΡ | 0250 | 2251 | | | T | | 1990 | 0726 | JP | 1989- | -500718 | | | 19881114 | < |
| | ΑT | 1357 | 43 | | | Τ | | 1996 | 0415 | AT | 1989- | -900809 | | | 19881114 | < |
| | US | 5831 | 034 | | | Α | | 1998 | 1103 | US | 1994- | -293842 | | | 19940822 | < |
| | US | 5753 | 503 | | | А | | 1998 | 0519 | US | 1994- | -347966 | | | 19941201 | < |
| PRIOR | RITY | APP | LN. | INFO | .: | | | | | US | 1987- | -120489 | | А | 19871113 | < |
| | | | | | | | | | | WO | 1988- | -EP1072 | | W | 19881114 | < |
| | | | | | | | | | | US | 1990- | -583505 | | В1 | 19900917 | < |
| | | | | | | | | | | US | 1991- | -693730 | | В1 | 19910430 | < |
| | | | | | | | | | | US | 1993- | -97170 | | В1 | 19930723 | < |
| | | | | | | | | | | US | 1993- | -105360 | | В1 | 19930810 | < |
| | | | | | | | | | | | | | | | | |

EDEntered STN: 13 Apr 1990

Human monoclonal antibodies which bind to envelope and/or core proteins of HIV-1 and to HIV-1-infected cells are produced and used to detect or treat HIV-1 infection. The monoclonal antibodies were prepared by fusing peripheral

IC

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ΙT

blood lymphocytes from HIV-1 serum-pos. donors with HAT (hypoxanthineaminopterin-thymidine) - sensitive fusion cells in the presence of PEG 1500 and DMSO. Hybrid cells were cloned, screened, etc. When monoclonal antibody 3D6 was covalently linked to the ricin A chain, the immunotoxin specifically killed HIV-1-infected H9 cells with a TCID50 (tissue culture ID of conjugate giving 50% of untreated control protein synthesis) <10 nM. 3D6 was conjugated to peroxidase and used in a competitive EIA to detect HIV-1 in blood serum. ICM C12P021-00 ICS A61K039-42; G01N033-569 15-3 (Immunochemistry) Section cross-reference(s): 1, 9 human monoclonal antibody HIV1; immunodeficiency virus human monoclonal antibody; immunotoxin human immunodeficiency virus antibody ricin Abrins Ricins RL: BIOL (Biological study) (A chain of, conjugates with human monoclonal antibody to human immunodeficiency virus type 1) Cytotoxic agents (conjugates with human monoclonal antibody to human immunodeficiency virus type 1) Animal tissue culture Blood analysis (human immunodeficiency virus type 1 detection in, human monoclonal antibody for) Immunodeficiency (acquired immune deficiency syndrome, human immunodeficiency virus type 1 detection in blood serum by competitive EIA using peroxidase-human monoclonal antibody conjugate in relation to) Proteins, specific or class RL: BIOL (Biological study) (core, of human immunodeficiency virus type 1, human monoclonal antibody to) Toxins RL: BIOL (Biological study) (cyto-, conjugates with human monoclonal antibody to human immunodeficiency virus type 1) Toxins RL: BIOL (Biological study) (diphtheria, A chain of, conjugates with human monoclonal antibody to human immunodeficiency virus type 1) Animal cell (disease, infection, with human immunodeficiency virus type 1, detection and treatment of, with human monoclonal antibodies) Proteins, specific or class RL: BIOL (Biological study) (envelope, of human immunodeficiency virus type 1, human monoclonal antibody to) Glycoproteins, specific or class RL: BIOL (Biological study) (gp120, of human immunodeficiency virus type 1, human monoclonal antibody to) Glycoproteins, specific or class RL: BIOL (Biological study) (gp160, of human immunodeficiency virus type 1, human monoclonal antibody to) Glycoproteins, specific or class RL: BIOL (Biological study)

(gp41, of human immunodeficiency virus type 1, human monoclonal

antibody to) ΙT Virus, animal (human immunodeficiency 1, human monoclonal antibodies to) ΙT Toxins RL: BIOL (Biological study) (immuno-, human monoclonal antibodies to human immunodeficiency virus type 1 in) Antibodies TΤ RL: BIOL (Biological study) (monoclonal, to human immunodeficiency virus type 1, human) ΤТ Antibodies RL: BIOL (Biological study) (monoclonal, neutralizing, to human immunodeficiency virus type 1, human) Proteins, specific or class ΤT RL: BIOL (Biological study) (p24, of human immunodeficiency virus type 1, human monoclonal antibody to) Proteins, specific or class ΙT RL: BIOL (Biological study) (p55, of human immunodeficiency virus type 1, human monoclonal antibody to) Proteins, specific or class ΤT RL: BIOL (Biological study) (p65, of human immunodeficiency virus type 1, human monoclonal antibody to) 125988-68-3 125988-69-4 ΙT RL: BIOL (Biological study) (human monoclonal antibody 3D6 to human immunodeficiency virus type 1 binding to) L147 ANSWER 33 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1990:112047 HCAPLUS <u>Full-text</u> 112:112047 DOCUMENT NUMBER: ORIGINAL REFERENCE NO.: 112:18794h,18795a Protein crosslinking reagents cleavable within TITLE: acidified intracellular vesicles INVENTOR(S): Neville, D. M.; Srinivasachar, K. PATENT ASSIGNEE(S): National Institutes of Health, USA SOURCE: U. S. Pat. Appl., 54 pp. Avail. NTIS Order No. PAT-APPL-6-204 163. CODEN: XAXXAV DOCUMENT TYPE: Patent LANGUAGE: Enalish FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE _____ ----____ _____ _____ US 204163 A0 19890315 US 1988-204163 19880601 <--US 5066490 A 19911119 A1 19891214 WO 1989-US2349 WO 8911867 19890531 <--W: AU, JP RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE AU 8937684 A 19900105 AU 1989-37684 19890531 <--AU 620417 В2 19920220 A1 19910320 EP 1989-906910 19890531 <--

R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE JP 03502098 T 19910516 JP 1989-506589

PRIORITY APPLN. INFO.:

JP 1989-506589 19890531 <--US 1988-204163 A 19880601 <--

WO 1989-US2349 A 19890531 <--

OTHER SOURCE(S): CASREACT 112:112047

ED Entered STN: 31 Mar 1990

GΙ

- A biol. active substance (e.g. a cytotoxin, other drug, protein, enzyme, or AΒ nucleic acid) is delivered to cells (e.g. by receptor-mediated endocytosis) as a conjugate (e.g. an immunotoxin or prodrug) which can be cleaved within the cells under acidic conditions (e.g. at pH 5.4 in vesicles). The bifunctional crosslinking agent used in preparation of the conjugate is a ketal I [A = bridge unit, preferably (CH2)n; n = 1-8; R = C1-9 alkyl (preferably Me), (substituted) Ph], an acetal II [A as defined above; B = A, C6H4(CH2)n], or an ortho ester III (A as above). These crosslinking agents can also be used to couple proteins reversibly to matrixes for synthetic and chromatog. purposes. Thus, I (A = CH2CH2) (IV) was prepared by ketal exchange between N-(2hydroxyethyl) maleimide and 2,2-dimethoxypropane. A nicked diphtheria toxin monomer was thiolated with iminothiolane and crosslinked to human T-cell surface antigen CD5 with IV. The toxicity of this conjugate toward target Jurkat cells was 50-fold greater than that of a similar conjugate prepared with a noncleavable crosslinker, bis(maleimidohexane).
- CC 1-2 (Pharmacology)

Section cross-reference(s): 28

- ST bifunctional crosslinker bioactive substance; texin antibody conjugation bifunctional crosslinker; ketal bifunctional crosslinker; acetal bifunctional crosslinker; ortho ester bifunctional crosslinker
- IT Cell membrane

(antigen CD5 of, of T-lymphocyte, <u>antibodies</u> to, <u>conjugates</u> with cytotoxins, preparation of, acid-hydrolyzable crosslinking agents for)

IT Antibodies

RL: SPN (Synthetic preparation); PREP (Preparation) (conjugates with cytotoxins, preparation of, acid-hydrolyzable crosslinking agents for)

IT Antigens

RL: SPN (Synthetic preparation); PREP (Preparation) (CD5, of T-lymphocyte cell membrane, <u>antibodies</u> to, <u>conjugates</u> with cytotoxins, preparation of, acid-hydrolyzable crosslinking agents for)

IT Lymphocyte

(T-, antigen CD5 of cell membrane of, antibodies to,

<u>conjugates</u> with cytotoxins, preparation of, acid-hydrolyzable crosslinking agents for)

IT Fetuins

RL: SPN (Synthetic preparation); PREP (Preparation)
(asialo-, <u>conjugates</u>, with ricin, acid-hydrolyzable
crosslinking agents for preparation of and immunotoxin inhibition by)

IT Ricins

RL: SPN (Synthetic preparation); PREP (Preparation) (conjugates, with antibodies, preparation of, acid-hydrolyzable crosslinking-agents for)

IT Transferrins

RL: RCT (Reactant); RACT (Reactant or reagent)
 (conjugates, with crosslinking agents, intracellular
 acid-hydrolysis of)

IT Toxins

RL: SPN (Synthetic preparation); PREP (Preparation) (diphtheria, antibody conjugates, preparation of, acid-hydrolyzable-crosslinking agents for)

IT Toxins

RL: SPN (Synthetic preparation); PREP (Preparation) (immuno-, preparation of, acid-hydrolyzable crosslinking agents for)

IT 9004-74-4, Monomethoxypolyethylene glycol

RL: BIOL (Biological study)

(activation and reaction with cysteamine and acid-hydrolyzable crosslinking agent, for conjugation with protein)

IT 4472-81-5, 1,3-Dithiolan-2-imine

RL: BIOL (Biological study)

(protein thiolation with, for <u>conjugation</u> with acid-hydrolyzable crosslinking agent)

IT 16904-32-8

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with PEG and acid-hydrolyzable crosslinking agent, for conjugation with protein)

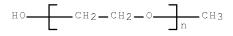
IT 9004-74-4, Monomethoxypolyethylene glycol

RL: BIOL (Biological study)

(activation and reaction with cysteamine and acid-hydrolyzable crosslinking agent, for conjugation with protein)

RN 9004-74-4 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), α -methyl- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 34 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1990:231950 HCAPLUS Full-text

DOCUMENT NUMBER: 112:231950

ORIGINAL REFERENCE NO.: 112:39034h,39035a

TITLE: Preparation of DTPA derivatives, radioactive metal

complexes with the derivatives, and use of the

complexes in diagnosis and therapy

INVENTOR(S): Kondo, Susumu; Kurami, Miki; Azuma, Makoto

PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA. | TENT NO. | | KINI | DATE | APPLICATION NO. | | DATE | |
|---------|----------|--------|--------|-------------|--------------------|----|----------|---|
| EP | 345723 | | A2 | 19891213 | EP 1989-110208 | | 19890606 | < |
| EP | 345723 | | А3 | 19910109 | | | | |
| EP | 345723 | | B1 | 19940525 | | | | |
| | R: AT, | BE, C | H, DE, | ES, FR, GB, | IT, LI, LU, NL, SE | | | |
| US | 5094950 | | A | 19920310 | US 1989-362370 | | 19890605 | < |
| DK | 8902767 | | A | 19891208 | DK 1989-2767 | | 19890606 | < |
| AU | 8936039 | | A | 19891214 | AU 1989-36039 | | 19890606 | < |
| AU | 617816 | | B2 | 19911205 | | | | |
| AT | 106075 | | T | 19940615 | AT 1989-110208 | | 19890606 | < |
| CA | 1331450 | | С | 19940816 | CA 1989-601896 | | 19890606 | < |
| ES | 2056150 | | Т3 | 19941001 | ES 1989-110208 | | 19890606 | < |
| JP | 02085239 | | A | 19900326 | JP 1989-145994 | | 19890607 | < |
| JP | 2815615 | | B2 | 19981027 | | | | |
| KR | 126238 | | B1 | 19971226 | KR 1989-7823 | | 19890607 | < |
| US | 5250702 | | A | 19931005 | US 1991-691989 | | 19910426 | < |
| PRIORIT | Y APPLN. | INFO.: | | | JP 1988-139885 | A | 19880607 | < |
| | | | | | JP 1988-139886 | A | 19880607 | < |
| | | | | | US 1989-362370 | A3 | 19890605 | < |
| | | | | | EP 1989-110208 | A | 19890606 | < |

OTHER SOURCE(S): MARPAT 112:231950

ED Entered STN: 23 Jun 1990

GΙ

DTPA derivs. HO2CCH2N(CH2CO2H)(CH2)2N(CH2CO2H)(CH2)2N(CH2CO2H)CH2CONH(CH2) nNH3 (I; n = 3-10), HO2CCH2N(CH2CO2H)(CH2)2N(CH2CO2H)(CH2)2N(CH2CO2H)CH2CO2H)CH2CO NHCnH2nNHA (II; n = 2-10; A = monovalent group formed by reacting 1 of the 2 reactive groups of a crosslinking reagent) and physiol. acceptable salts thereof, and II (n = 2-10; A = A'B; A' = bivalent linking group formed by reacting both reactive groups of a crosslinking reagent; B = polyceptide residue) (III) and physiol. acceptable salts thereof, are provided, as are III labeled with a radioactive metal. The radioactive metal complexes of III are useful as diagnostic and therapeutic agents. Thus, DTPA mono(6-aminohexyl)amide (preparation given) was reacted with 3,3'-dithiobis(sulfosuccinimidylpropranoate) and the product was conjugated to bovine IgG; the conjugate was further reacted with 111InCl3. Biodistribution of the prepared complex in rats was determined

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IC
     ICM C07C103-50
     ICS C07D207-48; A61K049-02
CC
     8-9 (Radiation Biochemistry)
     Section cross-reference(s): 23, 78
ST
     DTPA deriv radioactive metal complex prepn; scintigraphy agent
     prepn DTPA deriv; radiotherapy DTPA deriv prepn
ΙT
     Antibodies
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (DTPA reaction products, for scintigraphic and radiotherapeutic agent
       preparation)
    Myosins
ΙT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (myocardial, monoclonal antibody fragment to,
        conjugates with DTPA derivs., for scintigraphic and
        radiotherapeutic agents preparation)
ΙT
     Heart, composition
        (myosin of, monoclonal antibody fragment to,
        conjugates with DTPA derivs., for scintigraphic and
        radiotherapeutic agents preparation)
ΙT
     Hormones
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (peptides, DTPA reaction products, for scintigraphic and
        radiotherapeutic agent preparation)
ΙT
     Immunoglobulins
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (G, conjugates, with DTPA derivs., in scintigraphic and
        radiotherapeutic agents preparation)
ΙT
     Antibodies
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (monoclonal, fragment, to myocardial myosin, conjugates with
        DTPA derivs., for scintigraphic and radiotherapeutic agents preparation)
     Antibiotics
ΤT
        (peptide, DTPA reaction products, for scintigraphic and
        radiotherapeutic agent preparation)
ΙT
     Enzymes
     Glycoproteins, specific or class
       Immunoglobulins
     Lipoproteins
       Peptides, compounds
     Proteins, specific or class
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (reaction products, with DTPA derivative, for scintigraphic and
        radiotherapeutic agents preparation)
     10098-91-6D, Yttrium-90, DTPA derivative complexes
                                                         14378-26-8D,
     Rhenium-188, DTPA derivative complexes 14998-63-1D, Rhenium-186,
     DTPA derivative complexes 15092-94-1D, Lead-212, DTPA derivative
     complexes 15229-37-5D, Bismuth-211, DTPA derivative
     complexes
                 15766-00-4D, Samarium-153, DTPA derivative
     complexes
     RL: BIOL (Biological study)
        (for radiotherapeutic agents)
ΤТ
     14119-09-6D, Gallium-67, DTPA derivative complexes
                                                         14276-53-0D,
     Copper-62, DTPA derivative complexes
                                           14833-23-9D, Zinc-62, DTPA
     derivative complexes 15750-15-9D, Indium-111, DTPA derivative
     complexes
                 15757-14-9D, Gallium-68, DTPA derivative complexes
     RL: BIOL (Biological study)
        (for scintigraphic agents)
     14133-76-7D, Technetium-99, DTPA derivative complexes
     RL: BIOL (Biological study)
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(metastable, for scintigraphic agents)

127346-49-0DP, IgG conjugates, indium-111 complexes 127346-50-3DP, IgG and anti-myocardial myosin monoclonal antibody fragment conjugates, indium-111 complexes 127346-51-4DP, anti-myocardial myosin monoclonal antibody fragment conjugates 127346-52-5DP, anti-myocardial myosin monoclonal antibody fragment conjugates 127346-53-6P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, in scintigraphic and radiotherapeutic agent preparation) 127346-50-3DP, IgG and anti-myocardial myosin monoclonal antibody fragment conjugates, indium-111 complexes 127346-51-4DP, anti-myocardial myosin monoclonal antibody fragment conjugates 127346-52-5DP, anti-myocardial myosin monoclonal antibody fragment conjugates RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, in scintigraphic and radiotherapeutic agent preparation) RN 127346-50-3 HCAPLUS 24,25-Dithia-3,6,9,12,19-pentaazanonacosanoic acid, 3,6,9-CN tris(carboxymethyl)-29-[(2,5-dioxo-3-sulfo-1-pyrrolidinyl)oxy]-11,20,29trioxo- (9CI) (CA INDEX NAME)

RN 127346-51-4 HCAPLUS
CN 20,21-Dithia-3,6,9,12,15-pentaazapentacosanoic acid, 3,6,9tris(carboxymethyl)-25-[(2,5-dioxo-3-sulfo-1-pyrrolidinyl)oxy]-11,16,25trioxo- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 127346-52-5 HCAPLUS

CN 21,22-Dithia-3,6,9,12,16-pentaazahexacosanoic acid, 3,6,9-tris(carboxymethyl)-26-[(2,5-dioxo-3-sulfo-1-pyrrolidinyl)oxy]-11,17,26-trioxo-(9CI) (CA INDEX NAME)

PAGE 1-B

L147 ANSWER 35 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1979:20592 HCAPLUS Full-text

DOCUMENT NUMBER: 90:20592
ORIGINAL REFERENCE NO.: 90:3399a,3402a

TITLE: Detection of immune complement: a simple

assay based on characterization of the in vivo bound

Clq (PEG-Clq immunodiffusion test)

AUTHOR(S): Grangeot-Keros, Liliane; Segond, P.; Capel, F.;

Iscaki, S.; Pillot, J.

CORPORATE SOURCE: Hop. Antoine Beclere, Clamart, Fr.

SOURCE: Journal of Immunological Methods (1978),

23(3-4), 349-62

CODEN: JIMMBG; ISSN: 0022-1759

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 12 May 1984

As imple technique for detecting circulating immune complexes (IC) was developed with an exptl. model consisting of tetanus toxoid-human antitoxin complexes. Detection of circulating IC is a 2-step process. First, IC are precipitated by polyethylene glycol 6000 (PEG) at a final concentration of 2.5%. Then, IC are characterized by complement Clq bound in vivo as shown by gel double diffusion with an anti-Clq serum. When compared to the radiolabeled Clq binding test, the technique described here is simpler though giving similar results. The anal. study of precipitated IC shows the constant presence of IgG, IgM, Clq, and rheumatoid factor activity.

CC 15-1 (Immunochemistry)

ST immune complex assay blood complement; antitoxin toxin detection blood

IT Antitoxins

RL: PROC (Process)

(-toxin complexes, detection of, in blood serum)

IT Blood analysis

(antitoxin-toxin complex detection in, complement

in)

IT Complement

(C1q, in antitoxin-toxin complex detection)

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:v

L147 ANSWER 36 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2007:35870 USPATFULL Full-text

TITLE: Anti-CCR5 antibody

INVENTOR(S):

Olson, William C., Ossining, NY, UNITED STATES
Maddon, Paul J., Scarsdale, NY, UNITED STATES
Tsurushita, Naoya, Palo Alto, CA, UNITED STATES

Tsurushita, Naoya, Palo Alto, CA, UNITED STATES Hinton, Paul R., Sunnyvale, CA, UNITED STATES

Vasquez, Maximillano, Palo Alto, CA, UNITED STATES
PATENT ASSIGNEE(S): Progenics Pharmaceuticals Inc. (U.S. corporation)

Protein Design Labs, Inc. (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2007031408 A1 20070208
APPLICATION INFO:: US 2006-581945 A1 20061016 (11)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2003-371483, filed on 21

Feb 2003, GRANTED, Pat. No. US 7122185

NUMBER DATE

PRIORITY INFORMATION: US 2002-358886P 20020222 (60) <--

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Cooper & Dunham LLP, 1185 Avenue Of the Americas, New

York, NY, 10036, US

NUMBER OF CLAIMS: 33 EXEMPLARY CLAIM: 1-73

NUMBER OF DRAWINGS: 23 Drawing Page(s)

LINE COUNT: 2381

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention is directed an anti-CCR5 antibody which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising an expression product of either a plasmid designated pVgl:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmic designated pVgl:HuPRO140 (mutB+D+I)-VH (ATCC Deposit Designation PTA-4099) or a fragment thereof which binds to CCR5 on the surface of a human cell.

IT <u>25322-68-3D</u>, Polyethylene glycol, <u>antibody</u> conjugates

(PEG; anti-CCR5 antibody and conjugates for

treating human immunodeficiency virus 1 infection)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)

HO CH2-CH2-O-H

L147 ANSWER 37 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2006:261131 USPATFULL Full-text

TITLE: Humanized anti-Lymphotoxin beta receptor

antibodies

INVENTOR(S): Garber, Ellen, Cambridge, MA, UNITED STATES

Simon, Kenneth, Cambridge, MA, UNITED STATES

Saldanha, Jose William, Enfield, UNITED KINGDOM

PATENT ASSIGNEE(S): Biogen Idec MA Inc., Cambridge, MA, UNITED STATES (U.S.

corporation)

NUMBER KIND DATE ______

PATENT INFORMATION: US 2006222644 A1 20061005

A1 APPLICATION INFO.: US 2004-21819 20041223 (11)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 2003-US20762, filed on 1

Jul 2003, PENDING

NUMBER DATE

PRIORITY INFORMATION: US 2002-392993P 20020701 (60) <--<--

US 2002-417372P 20021009 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: LAHIVE & COCKFIELD, 28 STATE STREET, BOSTON, MA, 02109,

US

NUMBER OF CLAIMS: 32 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 2597

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

This invention concerns humanized antibodies specific for the lymphotoxin beta receptor (LT- β -R), cell lines that produce these antibodies,

immunochemicals made from the antibodies, and diagnostic methods that use

the antibodies. The invention also relates to the use of the antibodies alone or in combination with chemotherapeutic agent(s) in therapeutic

methods.

IT 25322-68-3D, Polyethylene glycol, conjugates with

humanized anti-lymphotoxin β receptor antibodies

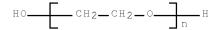
(humanized antibodies derived from mouse monoclonal

anti-lymphotoxin β receptor antibody BHA10 for cancer

diagnosis and therapy)

25322-68-3 USPATFULL RN

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 38 OF 84 USPATFULL on STN

2006:174008 USPATFULL Full-text ACCESSION NUMBER:

TITLE: Methods and compositions for modulating and detecting

WISP activity

INVENTOR(S): Desnoyer, Luc, San Francisco, CA, UNITED STATES

Filvaroff, Ellen, San Francisco, CA, UNITED STATES

PATENT ASSIGNEE(S): GENENTECH, INC. (U.S. corporation)

NUMBER KIND _____ US 2006147453 A1 20060706 US 2005-105876 A1 20050414 PATENT INFORMATION:

20050414 (11) APPLICATION INFO.:

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2004-519621, filed

on 28 Dec 2004, PENDING A 371 of International Ser. No.

WO 2003-US20407, filed on 28 Jun 2003

NUMBER DATE ______

PRIORITY INFORMATION: US 2006-392652P (60)

US 2002-408739P 20020906 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENENTECH, INC., 1 DNA WAY, SOUTH SAN FRANCISCO, CA,

94080, US

NUMBER OF CLAIMS: 30 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 36 Drawing Page(s)

LINE COUNT: 4380

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods and compositions for use in modulating the activity(s) of WISP-1 polypeptide are provided. WISP-1 antagonists include anti-WISP-1 antibodies, WISP-1 immunoadhesins and WISP-1 variants (and fusion proteins thereof) which inhibit or neutralize induction or secretion of HAS2, HA, CD44 or RHAMM by native human WISP-1 polypeptide in at least one type of mammalian cell. The invention also provides methods for in vitro, in situ, and/or in vivo diagnosis and/or treatment of mammalian cells or pathological conditions associated with native WISP-1 polypeptides.

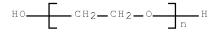
25322-68-3D, Polyethylene glycol, conjugates with

WISP-1 protein

(in cancer treatment; methods and compns. for modulating and detecting WISP activity and related cancer therapy and diagnosis)

25322-68-3 USPATFULL RN

Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME) CN



L147 ANSWER 39 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2006:86136 USPATFULL Full-text

TITLE: Methods and compositions for modulating and detecting

wisp activity

INVENTOR(S): Desnoyers, Luc, San Francisco, CA, UNITED STATES

Filvaroff, Ellen, San Francisco, CA, UNITED STATES

PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, UNITED

STATES, 94080 (U.S. corporation)

NUMBER KIND DATE ______ US 2006073135 A1 20060406 US 2003-519621 A1 20030628 (10) WO 2003-US20407 20030628 PATENT INFORMATION:

APPLICATION INFO.:

20041228 PCT 371 date

NUMBER DATE _____

US 20 -392652P PRIORITY INFORMATION: (60)

US 2002-408739P 20020906 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENENTECH, INC., 1 DNA WAY, SOUTH SAN FRANCISCO, CA,

94080, US

30 NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 27 Drawing Page(s)

LINE COUNT: 4056

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods and compositions for use in modulating the activity(s) of WISP-1 polypeptide are promided. WISP-1 antagonists inlcude anti-WISP-1 antiboties, WISP-1 immunoadhesins and WISP-1 variants (and fusion proteins thereof) which inhibit or neutralize induction or secretion of IIAS2, IIA, CD4 or RIIAMM by native human WISP-1 polypeptide in at least one type of cells or pathological conditions associated with native WISP-1 polypeptides.

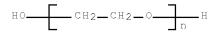
IT 25322-68-3D, Polyethylene glycol, conjugates with

WISP-1 protein

(in cancer treatment; antagonists of WISP-1 activity for use in treatment of cancer)

25322-68-3 USPATFULL RN

Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME) CN



L147 ANSWER 40 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2005:275137 USPATFULL Full-text

Treatment of cancer using antibodies to TITLE:

LRRC15

INVENTOR(S): Kloetzer, William S., Carlsbad, CA, UNITED STATES

McLachlan, Karen, Encinitas, CA, UNITED STATES La Barre, Michael I., San Diego, CA, UNITED STATES Fitchett, Jonathon, San Marcos, CA, UNITED STATES

Peach, Robert, San Diego, CA, UNITED STATES Shestowsky, Bill, Encinitas, CA, UNITED STATES

Glaser, Scott, San Diego, CA, UNITED STATES

PATENT ASSIGNEE(S): Biogen Idec Inc. (U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION: US 2003-510552P 20031014 (60) <--

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK

AVENUE, N.W., WASHINGTON, DC, 20005, US

NUMBER OF CLAIMS: 52 EXEMPLARY CLAIM: 1-168

NUMBER OF DRAWINGS: 29 Drawing Page(s)

LINE COUNT: 6917

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

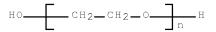
The present invention is directed to novel methods of treating or diagnosing a hyperproliferative disease or disorder in an patient, where the methods include administrating to the patient a binding molecule which binds to a cell surface-expressed glycoprotein expressed predominantly in tumor or tumor-associated cells. In particular, the therapeutic and diagnostic methods of the present invention include the use of a binding molecule, for example an antibody or immunospecific fragment thereof, which specifically binds to the human LRRC15 protein. The present invention further provides a method of isolating and identifying cell surface expressed glycoproteins expressed in tumor or tumor associated tissues, where the method includes isolating desired glycoproteins via their affinity for specific lectins.

IT 25322-68-3, Polyethylene glycol

(anti-human LRRC15 protein antibodies and LRRC15 fusion proteins for diagnosis and treatment of hyperproliferative and inflammatory diseases)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 41 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2005:157797 USPATFULL Full-text

TITLE: Anti-IL-20 <u>antibodies</u> and binding partners

and methods of using in inflammation INVENTOR(S): Xu, Wenfeng, Seattle, WA, UNITED STATES

Kindsvogel, Wayne R., Seattle, WA, UNITED STATES

Chen, Zhi, Bellevue, WA, UNITED STATES

Hughes, Steven D., Kenmore, WA, UNITED STATES

Chandrasekher, Yasmin A., Saratoga, CA, UNITED STATES

Dillon, Stacey R., Seattle, WA, UNITED STATES
Lehner, Joyce M., Seattle, WA, UNITED STATES
Siadak, Anthony W., Seattle, WA, UNITED STATES
Sivakumar, Pallavur V., Seattle, WA, UNITED STATES
Moore, Margaret D., Seattle, WA, UNITED STATES

NUMBER DATE

PRIORITY INFORMATION: US 2003-524131P 20031121 (60) <--

US 2004-555857P 20040324 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Shelby J. Walker, ZymoGenetics, Inc., 1201 Eastlake

Avenue East, Seattle, WA, 98102, US

NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
LINE COUNT: 9430

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to blocking the activity of IL-20 polypeptide molecules. IL-20 is a cytokine that is involved in inflammatory processes and human disease. IL-20RA/IL-20RB is a common receptor for IL-20. The present invention includes anti-IL-20 antibodies and binding partners, as well as methods for antagonizing IL-20 using such antibodies and binding partners.

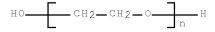
IT <u>25322-68-3D</u>, Polyethylene glycol, <u>conjugates</u> with

antibody or receptor

(anti-IL-20 neutralizing <u>antibodies</u> and antagonistic IL-20 receptor fragments for treating acute and chronic inflammation)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 42 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2004:279903 USPATFULL <u>Full-text</u>
TITLE: Anti-CD74 immunoconjugates and methods

INVENTOR(S): Griffiths, Gary L., Morristown, NJ, UNITED STATES

Hansen, Hans J., Picayune, MS, UNITED STATES Goldenberg, David M., Mendham, NJ, UNITED STATES

Lundberg, Bo B., Abo, FINLAND

NUMBER KIND DATE

PATENT ASSIGNEE(S): Immunomedics, Inc. (U.S. corporation)

| PATENT INFORMATION: | US 2004219203 A1 | 20041104 |
|-----------------------|--------------------------|--------------------------------|
| APPLICATION INFO.: | US 2003-706852 A1 | 20031112 (10) < |
| RELATED APPLN. INFO.: | Continuation-in-part of | Ser. No. US 2002-314330, filed |
| | on 9 Dec 2002, PENDING C | Continuation of Ser. No. US |
| | 2001-965796, filed on 1 | Oct 2001, PENDING Continuation |
| | of Ser. No. US 1999-3078 | 16, filed on 10 May 1999, |
| | GRANTED, Pat. No. US 630 | 6393 Continuation-in-part of |
| | Ser. No. US 2003-350096, | filed on 24 Jan 2003, PENDING |
| | Continuation of Ser. No. | US 2000-590284, filed on 9 Jun |
| | 2000, PENDING Continuati | on-in-part of Ser. No. US |

2003-377122, filed on 3 Mar 2003, PENDING

NUMBER DATE _____

US 2003-478830P 20030617 (60) PRIORITY INFORMATION: <--

US 2002-360259P 20020301 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Heller Ehrman & McAuliffe, Suite 300, 1666 K Street

Northwest, Washington, DC, 20006

NUMBER OF CLAIMS: 125 EXEMPLARY CLAIM:

13 Drawing Page(s) NUMBER OF DRAWINGS:

2737 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are compositions that include anti-CD74 immunoconjugates and a therapeutic and/or diagnostic agent. Also disclosed are methods for preparing the immunoconjugates and using the immunoconjugates in diagnostic and therapeutic procedures. The compositions may be part of a kit for administering the anti-CD74 immunoconjugates compositions in therapeutic and/or diagnostic methods.

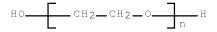
25322-68-3, Polyethyleneglycol

(lipid conjugated to anti-CD74 binding mol. comprising;

anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)

25322-68-3 USPATFULL RN

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 43 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2004:226993 USPATFULL Full-text

TITLE: Selected antibody compositions and methods

for binding to aminophospholipids

INVENTOR(S): Thorpe, Philip E., Dallas, TX, UNITED STATES

Ran, Sophia, Riverton, IL, UNITED STATES

PATENT ASSIGNEE(S): Board of Regents, The University of Texas System (U.S.

corporation)

NUMBER KIND DATE US 2004175378 A1 20040909 US 2003-620850 A1 20030715 PATENT INFORMATION:

APPLICATION INFO.: A1 20030715 (10) <--

NUMBER DATE

US 2002-396263P 20020715 (60) PRIORITY INFORMATION:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: Shelley P.M. Fussey, Williams, Morgan & Amerson, P.C.,

Suite 1100, 10333 Richmond, Houston, TX, 77042

NUMBER OF CLAIMS: 19 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 53 Drawing Page(s)

LINE COUNT: 12773 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are surprising discoveries concerning the role of anionic phospholipids and aminophospholipids in tumor vasculature and in viral entry and spread, and compositions and methods for utilizing these findings in the treatment of cancer and viral infections. Also disclosed are advantageous antibody, immunoconjugate and duramycin-based compositions and combinations that bind and inhibit anionic phospholipids and aminophospholipids, for use in the safe and effective treatment of cancer, viral infections and related

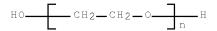
25322-68-3D, Polyethylene glycol, conjugates

(antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for

treating viral infections and cancer)

25322-68-3 USPATFULL RN

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



L147 ANSWER 44 OF 84 USPATFULL on STN

2004:220853 USPATFULL Full-text ACCESSION NUMBER:

Selected antibody compositions for binding to TITLE:

aminophospholipids

Thorpe, Philip E., Dallas, TX, UNITED STATES INVENTOR(S):

Ran, Sophia, Riverton, IL, UNITED STATES

NUMBER KIND DATE US 2004170620 A1 20040902 US 2003-621269 A1 20030715 PATENT INFORMATION:

20030715 (10) <--APPLICATION INFO.:

> NUMBER DATE _____

PRIORITY INFORMATION: US 2002-396263P 20020715 (60)

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: Shelley P.M. Fussey, Williams, Morgan & Amerson, P.C.,

Suite 1100, 10333 Richmond, Houston, TX, 77042

NUMBER OF CLAIMS: 92 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 53 Drawing Page(s)

LINE COUNT: 13072

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

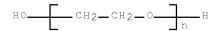
Disclosed are surprising discoveries concerning the role of anionic phospholipids and aminophospholipids in tumor vasculature and in viral entry and spread, and compositions and methods for utilizing these findings in the treatment of cancer and viral infections. Also disclosed are advantageous antibody, immunoconjugate and duramycin-based compositions and combinations that bind and inhibit anionic phospholipids and aminophospholipids, for use in the safe and effective treatment of cancer, viral infections and related diseases.

IT 25322-68-3D, Polyethylene glycol, conjugates

(antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- (CA INDEX NAME)



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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE,
BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 45 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-386334 [39] WPIX

CROSS REFERENCE: 2005-367003; 2005-372351; 2005-372352

DOC. NO. CPI: C2005-119573 [39]

TITLE: New protein conjugate comprising a

physiologically active polypeptide, a non-peptide polymer and an immunoglobulin Fc

fragment, useful for developing long-acting formulations

of various drugs

DERWENT CLASS: A96; B04; B05; D16

INVENTOR: BAE S M; KIM D J; KIM Y M; KWON S C; LEE G S; LIM C K

PATENT ASSIGNEE: (HANM-N) HANMI PHARM CO LTD

COUNTRY COUNT: 106

PATENT INFORMATION:

| PAI | ENT NO | KINI | D DATE | WEEK | LA | PG | MAIN IPC |
|-----|-------------|------|----------|-----------|----|---------|----------|
| WO | 2005047336 | A1 | 20050526 | (200539)* | EN | 126[15] | |
| BR | 2004006605 | A | 20051206 | (200624) | PT | | |
| MX | 2005007210 | A1 | 20060201 | (200641) | ES | | |
| ΕP | 1682583 | A1 | 20060726 | (200649) | EN | | |
| US | 20060269553 | A1 | 20061130 | (200679) | EN | | |
| JΡ | 2007536211 | W | 20071213 | (200801) | JA | 45 | |

APPLICATION DETAILS:

| PATENT NO KIND | APPLICATION DATE |
|-------------------|-------------------------|
| WO 2005047336 A1 | WO 2004-KR2944 20041113 |
| BR 2004006605 A | BR 2004-6605 20041113 |
| EP 1682583 A1 | EP 2004-800091 20041113 |
| BR 2004006605 A | WO 2004-KR2944 20041113 |
| MX 2005007210 A1 | WO 2004-KR2944 20041113 |
| EP 1682583 A1 | WO 2004-KR2944 20041113 |
| US 20060269553 A1 | WO 2004-KR2944 20041113 |
| MX 2005007210 A1 | MX 2005-7210 20050630 |
| US 20060269553 A1 | US 2006-535232 20060619 |
| JP 2007536211 W | WO 2004-KR2944 20041113 |
| JP 2007536211 W | JP 2006-539398 20041113 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---|---|--|
| | A Based on A1 Based on | WO 2005047336 A WO 2005047336 A |
| EP 1682583 JP 2007536211 | Al Based on W Based on | WO 2005047336 A WO 2005047336 A |
| PRIORITY APPLN. INFO: INT. PATENT CLASSIF.: | | 20031113 |
| IPC ORIGINAL: | [I,C]; C12N0009-00 [[I,A]; A61K0038-00 [I,C]; A61K0038-27 [A61K0039-395 [I,A]; A A61K0047-48 [I,A]; A6 A61P0005-00 [I,C]; A6 A61P0007-06 [I,A]; C0 C07K0014-435 [I,C]; C [I,A]; C07K0014-56 [I | ,A]; C07K0016-46 I,A]; C07K0019-00 [I,C]; C07K0019-00 I,A]; C12N0009-00 [I,C]; A61K0038-00 I,C]; A61K0038-21 [I,A]; A61K0038-21 I,A]; A61K0038-27 [I,C]; |
| | C07K0019-00 [I,A]; C0 C07K0019-00 M07K0319:30 | 7K0019-00 [I,C] |

BASIC ABSTRACT:

USCLASS NCLM:

NCLS:

WO 2005047336 A1 UPAB: 20051222

424/155.100

NOVELTY - Protein conjugate comprising covalently linked physiologically active polypeptide, a non-peptide polymer and immunoglobulin Fc fragment is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(A) a method for preparing the protein conjugate; and

424/178.100; 435/188.500; 530/391.100

(B) a pharmaceutical composition for enhancing in vivo duration and stability of a physiologically active polypeptide comprising the protein conjugate and a pharmaceutical carrier.

USE - The protein conjugate is useful for developing long-acting formulations of various polypeptide drugs. The protein conjugate and composition are useful for enhancing in vivo duration and stability of a physiologically active polypeptide.

ADVANTAGE - The protein conjugates have enhanced serum stability without reducing the in vivo activity of the bound peptides.

Fab'-N-PEG-N-Fc complex was subjected to pharmacokinetic analysis using Fab' as a control by subcutaneous injection into rats at 100 microg/kg and blood samples taken at 1, 6, 12, 24, 30, 48, 72, 96, 120, 240 and 288 hours examined by ELISA for serum protein levels. By 240 hours, serum protein concentration of unconjugated Fab' had fallen below 1 ng/ml compared with 100 ng/ml for the complex.

MANUAL CODE:

CPI: A12-V01; B04-C01H; B04-C02; B04-C03; B04-G01; B04-G21; B04-G22; B04-H02; B04-H04; B04-H05; B04-H05A; B04-H06; B04-H07; B04-H08; B04-H11; B04-H13; B04-H19; B04-J03A; B04-J03B; B04-J04; B04-J05D; B04-J05F; B04-J05H; B04-J06; B04-J07; B04-J09; B04-J10; B04-J13; B04-J18; B04-K01; B04-L01; B04-L04C; B04-L05A; B04-N02; B04-N05; B12-M10A5; B14-S15; D05-H11

TECH

BIOTECHNOLOGY - Preferred Protein Conjugate: The nonpeptide polymer is covalently linked via a reactive group at its both ends to the physiologically active polypeptide and the immunoglobulin Fc fragment, where one or more complemes of the physiologically active polypeptide and the nonpeptide polymer are covalently linked to a single molecule of the immunoglobulin Fc fragment. The immunoglobulin Fc fragment is preferably non-glycosylated and composed of 1-4 domains, e.g. CH1, CH2, CH3, and CH4 domains, where the immunoglobulin Fc fragment further includes a hinge region. The immunoglobulin Fc fragment is an Fc fragment from IqG, IqA, IqD, IqE, IqM, or their combinations and hybrids, where the immunoglobulin Fc fragment is an Fc fragment from IgG1, IgG2, IgG3, IgG4, or their combinations and hybrids, particularly an IgG4 Fc fragment and specifically a human aglycosylated IgG4 Fc fragment. The reactive group of the non-pertide polymer is an aldehyde group, a propionaldehyde group, a butylaldehyde group, a maleimide group or a succinimide derivative, where the succinimide derivative is succinimidyl propionate, succinimidyl carboxymethyl, hydroxy succinimidyl or succinimidyl carbonate, where the non-peptide polymer has a reactive aldehyde group as a reactive group at its both ends. The non-peptide polymer is linked at each end to a free reactive group at an amino terminal end, lysine residue, histidine residue or cysteine residue of the immunoglobulin Fc fragment and the physiologically active polypeptide. The non-peptide polymer is selected from polyethylene glycol single polymers, polypropylene glycol single polymers, ethylene glycol-propylene glycol copolymers, polyoxyethylated polyols, polyvinyl alcohols, polysaccharides, dextrans, polyvinylethyl ethers, biodegradable polymers, lipid polymers, chitins and/or hyaluronic acids, particularly polyethylene glycol. Preferred Active Polypeptides: The physiologically active polypeptide is selected from hormones, cytokines, enzymes, antibodies, growth factors, transcription regulatory factors, coagulation factors, vaccines, structural proteins, ligand proteins or receptors, especially human growth hormone, growth hormone releasing hormone, growth hormone releasing peptide, interferons, interferon receptors, colony stimulating factors, glucagon-like, G-protein-coupled receptor, interleukins, interleukin receptors, enzymes, interleukin binding proteins, cytokine binding proteins, macrophage activating factor, macrophage peptide, B cell factor, T cell factor, protein A, allergy inhibitor, cell necrosis qlycoproteins, immunotoxin, lymphotoxin, tumor necrosis factor, tumor suppressors, metastasis growth factor, alpha-1 antitrypsin, albumin, alpha-lactalbumin, apolipoprotein-E, erythropoietin, highly glycosylated erythropoietin, angiopoietins, hemoglobin, thrombin, thrombin receptor activating paptide, thrombomodulin, factor VII, factor VIIa, factor VIII, factor IX, factor XIII, plasminogen activating factor, fibrin-binding peptide, urokinase, streptokinase, hirudin, protein C, C-reactive protein, renin inhibitor, collagenase inhibitor, superoxide dismutase, leptin, platelet-derived growth factor, epithelial growth factor, epidermal growth factor, angiostatin, angiotensin, bone growth factor, bone stimulating protein, calcitonin, insulin, atriopeptin, cartilage inducing factor, elcatonin, connective tissue factor, tissue factor pathway inhibitor, activating follicle stimulating hormone, luteinizing hormone, luteinizing hormone releasing hormone, nerve growth factors, parathyroid hormone, relaxin, secretin, somatomedin, insulin-like growth factor, adrenocortical hormone, glucagon, cholecystokinin, pancreatic polypeptide, gastrin releasing paptida, corticotropin releasing factor, thyroid

stimulating hormone, autotaxin, lactoferrin, myostatin, receptors, receptor antagonists, cell Surface antigens, virus derived vaccine antigens, monoclonal antibodies, polyclonal antibodies, or antibody fragments. The physiologically active polypeptide is most preferably human growth hormone, interferon-alpha, granulocyte colony stimulating factor, erythropoietin or a Fab' antibody fragment.

Preparation: Claimed preparation of the protein conjugate comprises:

- (a) covalently <u>linking</u> one or more non-<u>peptide</u> polymers having a reactive group at its both ends, one or more physiologically active <u>polymeptides</u> and one or more immunoglobulin Fc fragments; and
- (b) isolating the protein <u>conjugate</u> essentially comprising the covalently <u>linked</u> physiologically active <u>polypeptide</u>, non-<u>peptide</u> polymer and immunoglobulin Fc fragment.

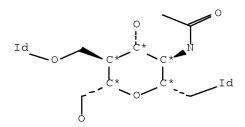
 Step (a) comprises:
- (1) covalently <u>linking</u> an immunoglobulin Fc fragment or physiologically active <u>polypeptide</u> to one end of an activated non-peptide polymer;
- (2) isolating a <u>complex</u> comprising the immunoglobulin Fc fragment or physiologically active <u>polypeptide linked</u> to the non-peptide polymer from a resulting reaction mixture; and
- (3) covalently <u>linking</u> an immunoglobulin Fc fragment or physiologically active <u>polypeptide</u> to the other end of the non-peptide polymer of the isolated <u>complex</u> to provide a protein <u>conjugate</u> comprising the immunoglobulin Fc fragment and the physiologically active <u>polypeptide</u>, which are <u>linked</u> to each end of the non-peptide polymer.
- In step (1), the physiologically active polypeptide and the non-peptide polymer are used at a reaction molar ratio of 1:1.25 to 1:5, particularly with immunoglobulin Fc fragment and the non-peptide polymer used at a reaction molar ratio of 1:5 to 1:10. In step (3), the complex obtained in step (2) and the immunoglobulin Fc fragment or physiologically active polypeptide are used at a reaction molar ratio of 1:0.5 to 1:20. Steps (1) and (3) are carried out in the presence of a reducing agent, e.g. sodium cyanoborohydride (NaCNBH3), sodium borohydride, dimethylamine borate or pyridine borate.
- ABEX EXAMPLE The E. coli transformant BL21/poDLHF expressing the anti-tumor necrosis factor-alpha Fab' was inoculated into a fermenter and cultured at 30 degrees C and 500 rpm in medium supplemented with glucose and yeast extracts. When the culture reached an OD600 value of 80-100, IPTG was added as inducer to induce protein expression and further cultured for 40-45 hours to give OD600 value of 120-140. The fermentation fluid was centrifuged at 20000g for 30 minutes and the supernatant collected and purified by column chromatography to give highly pure anti-tumor necrosis factor-alpha Fab' fractions. - Of these fractions, 40 mg was dissolved in 100 nM sodium phosphate buffer (pH 6.0) to give a concentration of 5 mg/ml and mixed with butyl ALD-PEG-butyl ALD (3.4 kDa) at a Fab':PEG molar ratio of 1:5 with NaCNBH3 (20 mM) added as reducing agent. The mixture was reacted with gentle agitation for 2 hours at 4 degrees C, then the reaction buffer exchanged for $20~\mathrm{mM}$ sodium phosphate buffer at the same pH and the mixture purified on a polyCAT column to remove unreacted Fab' molecules. This purified complex was dissolved in 100 mM sodium phosphate buffer (pH 6.0) at 10 mg/ml and mixed with immunoglobulin Fc dissolved in the same buffer at complex:Fc ration of 1:5. The reaction mixture was concentrated to final protein concentration of 50 mg/ml and NaCNBH3 (20 mM) added as reducing agent, then agitated gently at 4 degrees C for 24

hours. - The reaction was loaded onto a Superdex 200 column and equilibrated and then eluted with 10 mM sodium phosphate buffer to give pure Fab'-N-PEG-N-Fc complex.

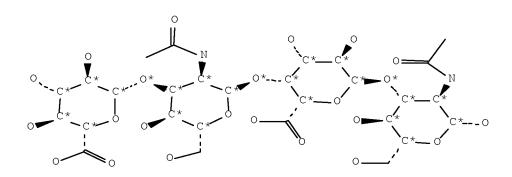
AN.S DCR-90688

CN.P CHITIN

CN.S N-[5-(3-Acetylamino-4,5-dihydroxy-6-hydroxymethyl-tetrahydro-pyran-2-yloxy)-2-(5 -acetylamino-4,6-dihydroxy-2-hydroxymethyl-tetrahydro-pyran-3-yloxy)-4-hydroxy-6 -hydroxymethyl-tetrahydro-pyran-3-yl]-acetamide SDCN R03233



AN.S DCR-97115 CN.P HYALURONIC-ACID SDCN R03231; R06437



AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 46 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

CROSS REFERENCE: 2004-707449

DOC. NO. CPI: C2005-185031 [63]

TITLE: Protein <u>conjugate</u> having a prolonged in vivo

half-life and a low probability of inducing an immune

response, comprises a physiologically active

polypeptide, a non-peptidic polymer

linker, and an immunoglobulin

DERWENT CLASS: A96; B04; D16

BAE S; KIM D; KIM Y; KWON S; LEE G; LIM C INVENTOR:

PATENT ASSIGNEE: (BAES-I) BAE S; (KIMD-I) KIM D; (KIMY-I) KIM Y; (KWON-I)

KWON S; (LEEG-I) LEE G; (LIMC-I) LIM C

COUNTRY COUNT:

PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG MAIN IPC -----

US 20050176108 A1 20050811 (200563)* EN 24[9]

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE ______

US 20050176108 A1 US 2003-659195 20030909

PRIORITY APPLN. INFO: KR 2003-36408 KR 2003-36408 20030605 KR 2003-15744 20030313

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07K0016-00 [I,A]; C07K0016-00 [I,C] JSCLASS NCLM: 435/070.210

USCLASS NCLM:

424/178.100; 530/391.100 NCLS:

BASIC ABSTRACT:

US 20050176108 A1 UPAB: 20051223

NOVELTY - A protein conjugate comprising a physiologically active polypertide, a non-pertidic polymer, and an immunoglobulin, which are covalently linked to one another, and having a prolonged in vivo half-life of the physiologically active polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (1) a method for preparing the protein conjugate;
- (2) a pharmaceutical composition having a prolonged half-life of a physiologically active polypeptide, which comprises the protein conjugate and a pharmaceutical carrier; and
- (3) prolonging the in vivo half-life of a physiologically active polypaptide comprising covalently linking a non- peptidic polymer having reactive groups at both ends with a physiologically active polypertide and an immunoglobulin.

USE - The protein conjugate is useful for delivering a physiologically active polypeptide with enhanced in vivo stability and prolonged half life in blood and with a low probability of inducing an immune response.

ADVANTAGE - Chemical modification of polypeptide with polyethylene glycol (PEG) increases the solubility of peptide drugs, and also increases serum stability, without inducing any immune response. However, there is a lowering in activity and production yield as the molecular weight of the PEG increases. The new conjugate provides an alternative way of increasing the serum stability of a paptidic drug with minimal reduction in the polypaptide's activity. In pharmacokinetic analyses a human growth hormone (hGH)-PRG-IgG conjugate of the invention had a half-life about 13 times longer than that of wild-type hGH, while an hGH-PEG and an hGH- PEG-albumin complex had half-lives 7 and 5 times longer than the wild-type. The conjugate of the invention showed a considerable increase in both mean residence time and serum half-life. MANUAL CODE: CPI: A10-E01; A12-V01; B04-C01; B04-C02; B04-C03;

> B04-G01; B04-H02; B04-H04; B04-H05; B04-H06; B04-H07; B04-H08; B04-H13; B04-H15; B04-H19; B04-J01; B04-J03; B04-J04; B04-J05; B04-J06; B04-J07; B04-J09; B04-J13;

B04-L01; B04-N02; B12-M10A5; D05-H10

TECH

BIOTECHNOLOGY - Preferred Protein Conjugate: The nonpeptidic polymer has two reactive groups at both ends, through which the polymer is covalently linked to the physiologically active polypeptide and the immunoglobulin, where the immunoglobulin is covalently linked to at least two complexes of the physiologically active polypeptide and the non-peptidic polymer. The immunoglobulin is (human) IgG, IgA, IgD, IgE, IgM or their mixture, preferably IgG1, IgG2, IgG3, IgG4 or their mixture. The reactive group of the non-peptidic polymer is aldehyde, propion aldehyde, maleimide or succinamide derivative. The succinamide derivative is succinimidyl propionate, succinimidyl carboxymethyl, hydroxy succinimidyl or succinimidyl carbonate, and the non-paptidic polymer has aldehyde groups at both ends. The non-peptidic polymer is covalently linked at its ends, the amino terminal, lysine residue, histidine residue or cysteine residue of the immunoglobulin and the amino terminal, lysine residue, histidine residue or cysteine residue of the physiologically active polypeptide, respectively. The non-peptidic polymer is poly(propylene glycol), ethylene glycol-propylene glycol copolymer, polyoxyethylated polyol, polyvinyl alcohol, polysaccharide, dextran, polyvinyl ethyl ether, poly(lactic-qlycolic acid), biodegradable polymer, lipid polymer, chitin, hyaluronic acids, or their mixture, preferably poly(ethylene glycol). The physiologically active polypaptide is hormone, cytokine, enzyme, antibody, growth hormone, transcription regulatory factor, blood factor, vaccine, structure protein, ligand protein or receptor. The physiologically active polypeptide is human growth hormone, growth hormone releasing hormone, growth hormone releasing paptide, interferons, colony stimulating factor, interleukins, qlucocerebrosidase, macrophage activating factor, macrophage peptide, B cell factor, T cell factor, protein A, suppressive factor of allergy, cell necrosis glycoprotein, immunotoxin, lymphotoxin, tumor necrosis factor, tumor inhibitory factor, transforming growth factor, alpha-1 antitrypsin, albumin, apolipoprotein-E, erythropoietin, hyper-glycosylated erythropoietin, factor VII, factor VIII, factor IX, plasminogen activator, urokinase, streptokinase, protein C, C-reactive protein, renin inhibitor, collagenase inhibitor, superoxide dismutase, platelet derived growth factor, epidermal growth factor, osteogenic growth factor, osteogenesis stimulating protein, calcitonin, insulin, atriopeptin, cartilage inducing factor, connective tissue activator protein, follicle stimulating hormone, luteinizing hormone, FSH releasing hormone, nerve growth factor, parathyroid hormone, relaxin, secretin, somatomedin, insulin-like growth factor, adrenocorticotropic hormone, glucagon, cholecystokinin, pancreatic polypeptide, gastrin releasing pertide, corticotrophin releasing factor, thyroid stimulating hormone, monoclonal antibody, polyclonal antibody, antibody derivatives including (Fab)', (Fab)'2 and scFv, and virus-derived vaccine antigen, preferably human growth hormone, interferon-alpha, granulocyte colony stimulating factor or erythropoietin. Preparation (claimed): Preparing the protein conjugate comprises: (a) covalently linking at least one physiologically active polypeptide, at least one immunoglobulin with at least one nonpeptidic polymer having reactive groups at both ends; and (b) isolating a protein conjugate comprising essentially the active polypeptide, the immunoglobulin and the nonpeptidic polymer, which are linked covalently. Step (a)

further comprises:

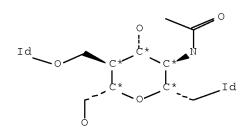
(a1) covalently coupling one end of the non-peptidic polymer with either an immunoglobulin or a physiologically active polypeptide;

(a2) isolating from the resulting reaction mixture a complex comprising the non-peptidic polymer coupled with the immunoglobulin or the physiologically active polypeptide; and (a3) covalently coupling the free end of the non-pertidic polymer of the complex with the immunoglobulin or physiologically active polypeptide, to produce a protein conjugate comprising the physiologically active polypeptide, the non-peptidic polymer and the immunoglobulin, which are covalently interlinked, where the molar ratio of the physiologically active polypeptide to the nonpeptidic polymer in step (al) is 1:2.5-1:5, the molar ratio of the immunoglobulin to the non-partidic polymer in step (a1) is 1:5-1:10, and the molar ratio of the complex obtained in step (a2) to physiologically active polypeptide or immunoglobulin in step (a3) is 1:1-1:3. Steps (a1) and (a3) are performed in the presence of a reducing agent, e.g. sodium cyanoborohydride, sodium borohydride, dimethylamine borate or pyridine borate.

AN.S DCR-90688

CN.P CHITIN

CN.S N-[5-(3-Acetylamino-4,5-dihydroxy-6-hydroxymethyl-tetrahydro-pyran-2-yloxy)-2-(5 -acetylamino-4,6-dihydroxy-2-hydroxymethyl-tetrahydro-pyran-3-yloxy)-4-hydroxy-6 -hydroxymethyl-tetrahydro-pyran-3-yl]-acetamide SDCN R03233



AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 47 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

DOC. NO. CPI: C2003-237339 [78]

TITLE: New conjugate compounds used for treating e.g.

inflammatory bowel disease, rheumatoid arthritis,

acromegaly, tuberculosis, tumors and angiogenesis contain

cytotoxic or therapeutic agents

DERWENT CLASS: A96; B04; B05

INVENTOR: COY D H; FUSELIER J A

PATENT ASSIGNEE: (TULA-C) TULANE EDUCATIONAL FUND; (COYD-I) COY D H;

(FUSE-I) FUSELIER J A

COUNTRY COUNT: 101

PATENT INFORMATION:

| PA] | TENT NO | KINI | DATE | WEEK | LA | PG | MAIN IPC | |
|-----|-------------|--------|----------|-----------|----|-------|----------|----|
| WO | 2003074551 | A2 | 20030912 | (200378)* | EN | 76[0] | | <- |
| AU | 2003220011 | A1 | 20030916 | (200430) | EN | | | <- |
| EP | 1487493 | A2 | 20041222 | (200501) | EN | | | |
| KR | 2004088568 | Α | 20041016 | (200514) | KO | | | |
| NO | 2004004039 | Α | 20040929 | (200517) | NO | | | |
| MX | 2004008419 | A1 | 20050101 | (200564) | ES | | | |
| CN | 1649625 | Α | 20050803 | (200578) | ZH | | | |
| US | 20060009622 | A1 | 20060112 | (200605) | EN | | | |
| JP | 2006510571 | W | 20060330 | (200623) | JA | 51 | | |
| IN | 2004CN02152 | P4 | 20060303 | (200626) | EN | | | |
| BR | 2003008090 | Α | 20060411 | (200627) | PΤ | | | |
| ZA | 2004006614 | Α | 20060628 | (200648) | EN | 98 | | |
| NZ | 534719 | A | 20080229 | (200822) | EN | | | |
| | | | | | | | | |

APPLICATION DETAILS:

| PATENT NO KIND | APPLICATION DATE |
|-------------------------------|---------------------------------|
| WO 2003074551 A2 | ₩O 2003US6657 20030303 |
| US 20060009622 A1 Provisional | <u>US 2002-360831P 20020301</u> |
| IN 2004CN02152 P4 | WO 2003-US6657 |
| AU 2003220011 A1 | <u>AU 2003-220011 20030303</u> |
| BR 2003008090 A | BR 2003-8090 20030303 |
| CN 1649625 A | CN 2003-809927 20030303 |
| EP 1487493 A2 | EP 2003-716299 20030303 |
| JP 2006510571 W | JP 2003-573017 20030303 |
| EP 1487493 A2 | WO 2003-US6657 20030303 |
| NO 2004004039 A | WO 2003-US6657 20030303 |
| MX 2004008419 A1 | WO 2003-US6657 20030303 |
| US 20060009622 A1 | WO 2003-US6657 20030303 |
| JP 2006510571 W | WO 2003-US6657 20030303 |
| BR 2003008090 A | WO 2003-US6657 20030303 |
| ZA 2004006614 A | ZA 2004-6614 20040819 |
| KR 2004088568 A | KR 2004-713597 20040831 |
| MX 2004008419 A1 | MX 2004-8419 20040831 |
| IN 2004CN02152 P4 | IN 2004-CN2152 20040927 |
| NO 2004004039 A | NO 2004-4039 20041018 |
| US 20060009622 A1 | US 2005-506223 20050713 |
| NZ 534719 A | NZ 2003-534719 20030303 |
| NZ 534719 A | WO 2003-US6657 20030303 |

FILING DETAILS:

| AU 2003220011 A1 Based on WO 2003074551 | ATENT NO | KIND | PATENT NO |
|---|---|---|---|
| EP 1487493 A2 Based on WO 2003074551 MX 2004008419 A1 Based on WO 2003074551 JP 2006510571 W Based on WO 2003074551 BR 2003008090 A Based on WO 2003074551 NZ 534719 A Based on WO 2003074551 | 2 1487493 3 2004008419 2 2006510571 3 2003008090 | A2 Based on B419 A1 Based on B571 W Based on B090 A Based on | WO 2003074551 A WO 2003074551 A WO 2003074551 A WO 2003074551 A |

PRIORITY APPLN. INFO: <u>US 2002-360831P</u> 20020301

US 2005-506223 20050713 INT. PATENT CLASSIF.: MAIN: A61K038-17; A61K039-395; C07K007-06 A61K038-08; A61K047-48; A61P035-00; C07K014-47; SECONDARY: C07K016-46 IPC ORIGINAL: A61K [N,S]; A61K0038-00 [I,A]; A61K0038-00 [I,C]; A61K0038-17 [I,A]; A61K0038-17 [I,C]; A61K0039-395 [I,A]; A61K0039-395 [I,C]; A61P0001-00 [I,A]; A61P0001-00 [I,C]; A61P0019-00 [I,C]; A61P0019-02 [I,A]; A61P0029-00 [I,A]; A61P0029-00 [I,C]; A61P0031-00 [I,C]; A61P0031-06 [I,A]; A61P0035-00 [I,A]; A61P0035-00 [I,C]; A61P0043-00 [I,A]; A61P0043-00 [I,C]; C07K [N,S]; C07K0014-435 [I,C]; C07K0014-47 [I,A]; C07K0014-655 [I,A]; C07K0016-00 [I,A]; C07K0016-00 [I,C]; C07K0004-00 [I,A]; C07K0004-00 [I,C]; C07K0005-00 [I,C]; C07K0005-103 [I,A]; C12N0009-99 [N,A]; C12N0009-99 [N,C] IPC RECLASSIF.: A61K0039-395 [I,A]; A61K0039-395 [I,C]; A61K0047-48 [I,A]; A61K0047-48 [I,C]; C07K0016-46 [I,A]; C07K0016-46 [I,C]; C07K0007-00 [I,C]; C07K0007-06 [I,A] ECLA: A61K0047-48R2F; A61K0047-48R4 USCLASS NCLM: 530/402.000 BASIC ABSTRACT: UPAB: 20060203 WO 2003074551 A2 NOVELTY - Conjugate compounds (I) and (II) containing cytotoxic or therapeutic agents, are new. DETAILED DESCRIPTION - Conjugate compounds of formula X-O-CO-N((CH2)2-R)-CH2-CO-NH-Y-Z-Q (I) and X-O-CO-N((CH2)2-R)-CH2-CO-R3 (II) are new. X = a cytotoxic or therapeutic agent; n = 0-6;(CH2)n = alkyl, alkenyl, alkynyl, cyclic group, heterocyclyl, aromatic group or heteroaromatic group (all optionally substituted and/or branched); R = N(R1R2), OR1 or SR1; R1, R2 = H or lower alkyl; Y = a hydrophilic spacer sequence or absent; Z = A-B'-C'-E-F' and is a linking paptide that preserves at least 50% of the biological activity of Q when bonded to Q at the N-terminus or at a compatible side-chain amino group of Q; Q = a targeting group or absent; A = D-Lys, D-Tyr, D-Ser or L-Ser, or absent; B' = D-Lys or D-Tyr or absent; C' = Lys, Ser, hSer, Thr, Nle, Abu, Nva, (2, 3, or 4) 3-pyridyl-Ala (Pal), Orn, Dab, Dap, 4-NH2-Phe, D-4-OH-Pro or L-4-OH-Pro or absent; E = D-Lys, D-Tyr, D-Ser, D-4-OH-Pro, L-4-OH-Pro, 3-iodo-D-Tyr, 3-5diiodo-D-Tyr, 3-astatine-D-Tyr, 3-5 astatine-D-Tyr, 3-bromo-D-Tyr, 3-5 dibromo-D- Tyr, D-Asn, L-Asn, D-Asp, L-Asp, D-Glu, L-Glu, D-Gln or L-Gln, and F' = D-Lys, D- Tyr, D-Ser, L-Ser, D-4- OH-Pro, L-4-OH-Pro, 3-iodo-D-Tyr, 3-5 diiodo-D-Tyr, 3-astatine-D-Tyr, 3-5 astatine-D-Tyr, 3-bromo-D-Tyr, 3-5 dibromo-D-Tyr, D-Asn, L-Asn, D-Asp, L-Asp, D-Glu, L-Glu, D-Gln or L-Gln; R3 = NH(CH2)mSH, D or L cysteine, a benzophenone or OH, and m = 2-6provided that: (1) when A, B', C' and E are Tyr, Tyr, Lys, and Tyr respectively, F' is not Lys; (2) when A, B', C' and E are Lys, Tyr, Lys, and Tyr respectively, E is not Tyr or Lys; and (3) when A and B' are absent and C' and E are Lys and Tyr respectively, F' is not Tyr or Lys.

ACTIVITY - Antitubercular; Osteopathic; Antiinflammatory; Gastrointestinal-Gen.; Antirheumatic; Antiarthritic; Tuberculostatic; Cytostatic; Antiangiogenic; Ophthalmological.

MECHANISM OF ACTION - None given.

USE - Used for treating inflammatory bowel disease, rheumatoid arthritis, acromegaly, tuberculosis, tumors of the lung, breast, brain, eye, prostate or colon, tumors of neuroendocrine origin (specifically carcinoid syndrome) or angiogenesis that causes inappropriate proliferation of blood vessels (particularly in the eye), such as those associated with tumors, retinal macular degeneration and diabetic retinopathy.

In an assay for measuring inhibition of gonadotropin releasing hormone from monocultures of rat pituitary cells, camptothecin-carbonyl-N- aminoethyl-glycine-D-tert-butyl-Ser-Nle-D-tert-butyl-Tyr-D-tert-butyl-Ser- S-trityl-Cys-Phe-D-Trp-epsilon-tert-butyloxycarbonyl-Lys-tert-butyl-Thr-S- trityl-Cys-tert-butyl-Thr-Rink-amide-resin exhibited an IC50 value of 0.27 +/- 0.02 nM.

ADVANTAGE - (I) Are conjugates having a cleavable chemical linker that controls the release rate of therapeutic and cytotoxic agents in circulation, rendering the active agent more readily internalized by the cell. (I) Provide an effective means to link cytotoxic agents to a targeting agent while retaining the activity of each component to maximize therapeutic effects while minimizing toxicity. (I) May be used with a wide range of therapeutic or cytotoxic agents.

MANUAL CODE:

CPI: A12-V01; B04-C01A; B04-C01B; B04-H01; B04-H06A;

B04-N02; B14-A01B1; B14-C01; B14-C03; B14-C06; B14-C09;

B14-D03; B14-H01; B14-N01

TECH

ORGANIC CHEMISTRY - Preparation: (I) And (II) are prepared by standard peptide synthesis.

PHARMACEUTICALS - Preferred Components: Q Targets the compound to a cell or tissue (a cancer cell, white blood cell, cardiac tissue, brain tissue or a tuberculosis-infected tubercule, specifically a tumor or a proliferative angiogenic blood vessel in the eye). The targeting group is a perticular derived from a phage-display library (or its conservative substitutions) that targets cells and tissues.

In (II), the R3 group is used to attach a perticular, protein or antibody, preferably by a thiol reaction (when m1 is 0-6) or by a photochemical reaction (when R3 is a benzophenone (preferably

protein or ancisony, preferably by a thiol reaction (when mi is 0-6) or by a photochemical reaction (when R3 is a benzophenone (preferably p-benzoyl phenylalanine)).

POLYMERS - Preferred Components: The hydrophilic polymer is polywthylene glycol, polyvinyl acetate, polyvinyl alcohol, HPMA (N-(2-hydroxypropyl) methacrylamide) or HPMA copolymers, alpha, beta-poly(N-hydroxyethyl)-DL-aspartamide (PHEA), or alpha, beta-poly(n-hydroxypropyl)-DL-aspartamide (preferably polyethylene glycol, polyvinyl alcohol and polyvinyl acetate).

ABEX DEFINITIONS - Preferred Definitions: - Y = a peptide of formula U(VV)n that increases the hydrophilic biodistribution of (I) or a hydrophilic polymer; - U = D-Pro, L-Pro, D-4-OH-Pro, L-4-OH-Pro, sarcosine, Lys, Orn, Dab, Dap, 4-NH2-Phe or (NH2-(CH2)m1-COOH), or absent; -m1 = 2-10, and -V= D-Ser, L-Ser, D-Thr, L-Thr, D-Gln, L-Gln, D-Asn, L-Asn, D-4-OH-Pro or L-4 hydrody-Pro and at least one V is a D-amino acid; - cytotoxic agent = an alkylating agent, an antibiotic, an antimetabolite, a tubulin inhibitor, a topoisomerase I or II inhibitor, a hormonal agonist or antagonist, an apoptotic agent or an immunomodulator, preferably camptothecin, homocamptothecin, colchicine, combretastatin, dolistatin, doxorubicin, methotrexate, podophyllotoxin, rhizoxin, rhizoxin D, a taxol, paclitaxol, CC1065, a maytansinoid or their derivatives or analogs, and targeting group Q = a biologically active peptide (somatostatin, bombesin, a KiSS peptide, a urotensin II peptide, gonadotropin-releasing hormone (GnRH) I and II peptides, octreotide, depreotide, vapreotide, vasoactive intestinal peptide (VIP), cholecystokinin (CCK), insulin-like growth

factor (IGF), RGD-containing peptides, melanocyte-stimulating hormone (MSH) peptide, neurotensin, calcitonin, a peptide comprising the complementarity determining region of an antitumor antibody glutathione, a leukocyte-avid peptide comprising the amino acid sequence Tyr-Ile-Gly-Ser-Arg, the heparin-binding region of platelet factor-4 (PF-4) and a lysine-rich sequence (preferably P438H), atrial natriuretic peptide (ANP), a beta-amyloid peptide, a delta-opioid antagonist (preferably ITIPP (psi)), annexin-V, endothelin, interleukin (IL)-1, IL-1ra, IL-2, IL-8, leukotriene B4 (LTB4), a chemotactic peptide (preferably N-formyl-methionyl-leucyl-phenylalanine-lysine (fMLFK)), aGP IIb/IIa receptor antagonist (preferably DMP 444), epidermal growth factor, a human neutrophil elastase inhibitor (preferably EPI-HNE-2 or EPI-HNE-4), plasmin inhibitor, an antimicrobial peptide, apticide P280, apticide P274, a thrombospondin receptor (preferably TP1300), bitistatin, pituitary adenylyl cyclase type I receptor (PAC1), fibrin alpha-chain, or their derivatives or analogs), an antibody (preferably monoclonal) or its fragment.

ADMINISTRATION - The dosage is 0.1-100 (preferably 250-5000) mug/kg/day orally, parenterally (e.g. by inhalation, intramuscularly, intraperitoneally, intravenously, subcutaneously or by ocular injection, optical drops or implant), nasally, vaginally, rectally, sublingually or topically.

EXAMPLE - Camptothecin (250 mg) and 4-dimethylaminopyridine (50 mg) were suspended in anhydrous pyridine (3 ml) and anhydrous methylene chloride (50 ml). Phosqene (750 ml of a 20% solution in toluene) was added, mixed for 2 hours and the mixture worked up to obtain camptothecin chloroformate (A) dissolved in dichloromethane (DCM). Rink amide (4-(2',4'dimethoxyphenyl-Fmoc-(aminomethyl)phenoxyacetamido-norleucylmethylbenzhydrylamine resin (0.063 mmol) was swollen in dimethylformamide (DMF) for 1 hour, filtered and an excess of 20% piperidine in DMF added. After mixing (2 minutes), the resin was filtered and an excess amount of 20% piperidine was again added and mixed (20 minutes) to ensure complete removal of the resin Fmoc group. After deprotection, the resin was washed with DMF and then 0.188 mmol each of the first protected amino acid, Fmoc-Thr(tBut), diisopropylcarbodiimide, and N-hydroxybenzotriazole monohydrate was dissolved in DMF and added to the resin, mixed for 1 hour and washed with DMF. - The Fmoc group was again removed by treatment with 20% piperidine/DMF solution and, following the same general coupling procedures, the following amino acids were successively reacted with the growing peptide chain: Fmoc-S-trityl-L-cysteine, Fmoc-O-t-butyl-Lthreonine, N-alpha-Fmoc-N-eta-Boc-L-lysin, N-alpha-Fmoc-N-in-Boc-Dtryptophan, Fmoc-L-phenylalanine, Fmoc-S-trityl-L-cysteine, Fmoc-O-t-butyl-D-serine, Fmoc-O-t-butyl-D-tyrosine, N-alpha-Fmoc-Norleucine, Fmoc-O-t-butyl-D-serine and bromoacetic acid. After completion of bromoacetic acid coupling to peptidyl resin (3 equivalents), N-Boc-ethylenediamine was added in N-methyl-alpha-pyrrolidinone, mixed for 2 hours and then washed successively with DMF and DCM. (A) was added to the resin and the mixture worked up to obtain camptothecin-carbonyl-Naminoethyl-glycine-D-tert-butyl-Ser-Nle-D-tert-butyl-Tyr-D-tert-butyl-Ser-S-trityl-Cys-Phe-D-Trp-epsilon-tert-butyloxycarbonyl-Lys-tert-butyl-Thr-Strityl-Cys-tert-butyl-Thr-Rink-amide-resin.

AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 48 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN DOC. NO. CPI: C2003-078140 [29]

TITLE: Sustained release apparatus, useful for treatment of

humans or animals, comprises mini-tablet implants effective at lower dose than immediate release

composition

DERWENT CLASS: A96; B07; C07; D16; D22; P32; P34

INVENTOR: BRANDON M; MARTINOD S R

PATENT ASSIGNEE: (BRAN-I) BRANDON M; (MART-I) MARTINOD S R; (SMAR-N) SMART

DRUG SYSTEMS INC

COUNTRY COUNT: 99

PATENT INFORMATION:

| PATENT NO | KIND DATE | WEEK L | LA PG | MAIN IPC | |
|----------------|-------------|---------------|----------|----------|---|
| WO 2003009833 | A1 20030206 | 5 (200329)* E | EN 43[0] | | < |
| EP 1411905 | A1 20040428 | 3 (200429) E | EN | | |
| AU 2002344686 | A1 2003021 | 7 (200452) E | EN | | < |
| BR 2002010630 | A 2004072 | 7 (200452) P | PΤ | | |
| JP 2004535473 | W 20041125 | 5 (200477) J | JA 70 | | |
| US 20040247643 | A1 20041209 | (200481) E | EN | | |
| CN 1536988 | A 20041013 | 3 (200508) Z | ZH | | |
| IN 2003DN02257 | P1 20060120 | (200615) E | EN | | |
| NZ 529858 | A 20060224 | ! (200619) E | EN | | |

APPLICATION DETAILS:

| PATENT NO K | XIND A | APPLICATION DATE |
|------------------|----------|-------------------------|
| WO 2003009833 A1 | | WO 2002-AU866 20020701 |
| AU 2002344686 A1 | | AU 2002-344686 20020701 |
| BR 2002010630 A | | BR 2002-10630 20020701 |
| CN 1536988 A | Š | CN 2002-813118 20020701 |
| EP 1411905 A1 | Ĭ. | EP 2002-742516 20020701 |
| EP 1411905 A1 | ¥ | WO 2002-AU866 20020701 |
| BR 2002010630 A | ÿ | WO 2002-AU866 20020701 |
| JP 2004535473 W | ÿ | WO 2002-AU866 20020701 |
| US 20040247643 A | \1 | WO 2002-AU866 20020701 |
| IN 2003DN02257 P | °1 | WO 2002-AU866 20020701 |
| JP 2004535473 W | 1. | JP 2003-515226 20020701 |
| IN 2003DN02257 P | ·1 | IN 2003-DN2257 20031224 |
| US 20040247643 A | 1 | JS 2004-482335 20040629 |
| NZ 529858 A | 3 | NZ 2002-529858 20020701 |
| NZ 529858 A | 9 | WO 2002-AU866 20020701 |

FILING DETAILS:

| AU 2002344686 A1 Bas | ed on WO 2003009833 A ed on WO 2003009833 A ed on WO 2003009833 A |
|----------------------|---|
| | ed on WO 2003009833 A ed on WO 2003009833 A |

PRIORITY APPLN. INFO: <u>AU 2001-6024</u> 20010629

INT. PATENT CLASSIF.:

MAIN: A61K009-58

SECONDARY: A61K038-18; A61K038-19; A61K038-37; A61K038-43;

A61K039-002; A61K039-02; A61K039-12; A61K039-395

; A61K047-48

IPC RECLASSIF.: A61K0031-365 [I,A]; A61K0031-365 [I,C]; A61K0031-7042 [I,C]; A61K0031-7048 [I,A]; A61K0045-00 [I,A]; A61K0045-00 [I,C]; A61K0009-52 [I,A]; A61K0009-52 [I,C]; A61K0009-58 [I,A]; A61M0037-00 [I,A]; A61M0037-00 [I,C]; A61P0001-00 [I,C]; A61P0001-04 [I,A]; A61P0029-00 [I,A]; A61P0029-00 [I,C]; A61P0033-00 [I,C]; A61P0033-10 [I,A]; A61P0035-00 [I,A]; A61P0035-00 [I,C]; A61P0037-00 [I,C]; A61P0037-06 [I,A]; A61P0007-00 [I,C]; A61P0007-04 [I,A] A61K0031-365; A61K0031-7048 ECLA: BASIC ABSTRACT:

WO 2003009833 A1 UPAB: 20050903

> NOVELTY - Sustained release apparatus including at least one sustained release mini-tablet implant (A) that comprises at least one pharmaceutical (I) and a carrier. (A), or all (A) together, have significantly smaller size and/or payload relative to an equivalent immediate release treatment.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) Sustained release kit containing at least one (A) packaged for delivery in a single treatment;
- (2) Composition containing an anthelmintic (Ia) and a non-silicone carrier in unit dose form;
- (3) Sustained release composition containing a growth-enhancing compound (Ib) and a non-silicone carrier in unit dose form; and
- (4) Therapeutic or prophylactic treatment of humans or animals by administering the new apparatus.

ACTIVITY - Anthelmintic.

No details of tests for anthelmintic activity are given. MECHANISM OF ACTION - None given in the source material.

USE - The apparatus is used to deliver a very wide range of (I) for treatment of humans, other mammals, birds, fish and reptiles, most especially the anthelmintic ivermectin, and growth-promoting agents, especially hormones.

ADVANTAGE - The apparatus requires significantly less (I) than known treatments to provide the desired effect, e.g. for porcine somatostatin, a dose of 12 mg in (A) is equivalent to seven 5 mg daily injections. (I) is released from (A) with essentially zero-order kinetics.

MANUAL CODE:

CPI: A12-V; A12-V01; B01-D02; B04-C01D; B04-C03C; B04-C03D; B04-G01; B04-H06; B04-N02; B05-A01B; B05-B01B; B05-C07; B06-A03; B06-D01; B07-A02A; B07-A02B; B10-A09A; B10-C04E; B12-M04; B14-B03; C01-D02; C04-C01D; C04-C03C; C04-C03D; C04-G01; C04-H06; C04-N02; C05-A01B; C05-B01B; C05-C07; C06-A03; C06-D01; C07-A02A; C07-A02B; C10-A09A; C10-C04E; C12-M04; C14-B03; D09-C01

TECH

PHARMACEUTICALS - Preferred Tablet: Each (A) contains 30-70 (preferably 30-50, wt.%) of the total payload of an equivalent immediate release treatment. (A) may also include a sustained release support, on or in which the active component is carried, and is particularly in the form of an (un)coated tablet or rod, or a matrix, particularly a silicone-coated compressed tablet or extruded rod. Where several (A) are used, each one, individually, is insufficient to provide the required blood level of (I). Particularly (A) are 0.1-0.5, especially 0.2-0.25, times the length and/or diameter of an immediate release tablet that provides the desired threshold level of (I) in the blood. It is generally cylindrical with cross-sectional diameter 0.1-4 mm and length 0.1-20, preferably 0.25-5, mm. Especially it has essentially zero-order release kinetics. The pharmaceutical carrier includes a water-soluble ingredient that is solid at body temperature, e.g. a synthetic polymer, sugar, amino acid, (in)organic salt or protein. This component is 10-30% of the active composition. The sustained release support is a biocompatible matrix or a solid absorption medium and a viscous polymer.

Preferred Kit: (A) are packaged in a biodegradable sheet of water-soluble material and the kit may include a delivery device, especially an injector for subcutaneous or intramuscular delivery.

Preferred Compositions: The composition of (2) is a compact or extruded tablet or rod containing a macrocyclic lactone and/or insect-growth regulator, also at least one water-soluble compound, particularly sucrose, sodium chloride and/or sodium deoxycholate. The compositions of (3) contain a hormone, growth factor or cell adhesion factor and water-soluble compounds as above. Especially it contains, by weight, 5-15% sodium chloride; 0.5-5% magnesium stearate and the balance recombinant porcine somatotropin.

Preferred Materials: (I) is any of a very wide range of therapeutic agents, e.g. analgesics; antibodies; antiinflammatories; contraceptives; diuretics; antidiabetics; anticancer agents; cytokines; vaccines (against many bacterial and viral pathogens); parasiticides, in particular the anthelmintic ivermectin or a natural or synthetic human, porcine, bovine or ovine growth hormone.

POLYMERS - Preferred Materials: Suitable carriers for lipophilic (I) are polyathylane glycol; polyoxystearate 40; and polyoxyethylane-polyoxypropylane glycol; and biocompatible materials for the sustained release support are polyesters; poly(amino acids); silicones; ethylane-vinyl acetate copolymers and poly(vinyl alcohol). ORGANIC CHEMISTRY - Preferred Materials: Suitable carriers for lipophilic (I) are sucrose fatty acid esters; sodium lauryl sulfate; sodium oleate; and sodium deoxycholate.

ABEX EXAMPLE - Mini-tablets (2.95 mm diameter; 1 mm thick) were prepared by compressing a mixture of ivermectin (I') and sucrose in presence of magnesium stearate, and each contained 4.7 mg (I'). An implant of 21 of these tablets was injected intramuscularly into a cow. Blood serum levels of (I') were 4.9 mg/ml during the first 2 weeks; 2.8 mg/ml in week 3 and 2.2 mg/ml in week 4.

AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 49 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

DOC. NO. CPI: C2003-032884 [12]

TITLE: Liquid alcohol or hydrocarbon-in-fluorocarbon microemulsion useful as precursors for solid

nanoparticles for targeted delivery of drug molecule e.g.

plasmid DNA

DERWENT CLASS: A96; B04; D13; D16 INVENTOR: JAY M; MUMPER R J

PATENT ASSIGNEE: (KENT-C) UNIV KENTUCKY RES FOUND; (JAYM-I) JAY M;

(MUMP-I) MUMPER R J

COUNTRY COUNT: 99

PATENT INFORMATION:

| PAT | ENT NO | KINI | DATE | WEEK | LA | PG | MAIN IPC | |
|-----|-------------|--------|----------|-----------|----|-------------|----------|---|
| WO | 2002076441 | A1 | 20021003 | (200312)* | EN | 114[35] | | < |
| EP | 1379227 | A1 | 20040114 | (200410) | EN | | | |
| AU | 2002250414 | A1 | 20021008 | (200432) | EN | | | < |
| US | 20060292183 | A1 | 20061228 | (200702) | ΕN | | | |
| US | 7153525 | В1 | 20061226 | (200702) | ΕN | | | |
| US | 20070154907 | A1 | 20070705 | (200746) | ΕN | | | |

APPLICATION DETAILS:

| PATENT NO KIND | APPLICATION DATE |
|-------------------------------|--------------------------|
| WO 2002076441 A1 | wo 2002-us8936 20020321 |
| US 7153525 B1 Provisional | US 2000-191112F 20000322 |
| US 20060292183 A1 Provisional | US 2000-191112F 20000322 |
| US 7153525 B1 | US 2001-812884 20010321 |
| US 20060292183 A1 | US 2001-812884 20010321 |
| AU 2002250414 A1 | AU 2002-250414 20020321 |
| EP 1379227 A1 | EP 2002-719324 20020321 |
| EP 1379227 A1 | WO 2002-US8936 20020321 |
| US 20070154907 A1 Provisional | US 2000-191112P 20000322 |
| US 20070154907 A1 Cont of | US 2001-812884 20010321 |
| US 20070154907 A1 | US 2006-558302 20061109 |

FILING DETAILS:

| PATENT NO | KIND | | PATENT NO | |
|----------------|------|----------|---------------|-------|
| EP 1379227 | A1 | Based on | WO 2002076441 | А |
| AU 2002250414 | A1 | Based on | WO 2002076441 | Α |
| US 20070154907 | A1 | Cont of | US 7153525 | В |

PRIORITY APPLN. INFO: US 2001-812884 20010321 US 2000-191112P 20000322

US 2006-558302 20061109

INT. PATENT CLASSIF.:

MAIN: A61K031-03

IPC ORIGINAL: A61K0031-715 [I,A]; A61K0031-716 [I,A]; A61K0039-395 [I,A]; A61K0048-00 [I,A];

> A61K0009-00 [I,A]; A61K0009-14 [I,A]; B29B0009-00 [I,A]; C12N0015-87 [I,A]; C12N0015-87 [I,C]; C12Q0001-68 [I,A]; C12Q0001-68 [I,C]; G01N0033-53 [I,A]; G01N0033-53 [I,C] A61K0031-00 [I,A]; A61K0031-00 [I,C]; A61K0031-711 [I,A];

IPC RECLASSIF.: A61K0031-711 [I,C]; A61K0031-713 [I,A]; A61K0031-713

[I,C]; A61K0047-48 [I,A]; A61K0047-48 [I,C]; A61K0009-107

[I,A]; A61K0009-107 [I,C]; A61K0009-51 [I,A];

A61K0009-51 [I,C]

ECLA: A61K0009-00M5; A61K0009-107D; A61K0009-51; A61K0031-00;

A61K0031-711; A61K0031-713; A61K0047-48W6; A61K0048-00;

C12N0015-87

ICO: K61K0009:107D USCLASS NCLM: 424/489.000

> 264/005.000; 424/450.000; 424/499.000; 435/007.100; NCLS:

435/459.000; 514/937.000; 514/939.000; 977/902.000;

977/924.000

BASIC ABSTRACT:

WO 2002076441 A1 UPAB: 20050903

NOVELTY - Stable alcohol-in-fluorocarbon (A) or liquid hydrocarbon-influorocarbon microemulsion (B) comprising an alcohol (a) or liquid hydrocarbon (a') dispersed phase, a fluorocarbon continuous phase (b), a molecule dissolved or dispersed in alcohol, a film-forming substance (d) dissolved or dispersed in (a) or (a') respectively, a surfactant and/or co-surfactant (e), and a cell-targeting agent (f), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) purifying a solid nanoparticle involving removing alcohol from (A) by evaporating or diluting with a solvent or solidifying the hydrocarbon of (B) into solid nanoparticles containing molecule so as to cure the

nanoparticle in a continuous phase, subjecting the cured nanoparticle to gel permeation or ultracentrifugation and treatment with a buffer to obtain a solid nanoparticle;

- (2) a nanoparticle (C) prepared from oil-in-water microemulsion precursor comprises at least one liquid nanoparticle matrix (g), at least one surfactant and/or co-surfactant (e') and a molecule; and
- (3) preparation of a solid stable nanoparticle (C') involving melting (g) at $35-100 {\rm degreesC}$ to form a liquid dispersed phase, dispersing molecule into the liquid dispersed phase, which is further dispersed in the aqueous continuous phase to form a surfactant stabilized microemulsion and cooling the microemulsion while stirring to form (C') having a diameter of less than 300 nm, including molecule either entrapped in or adsorbed to (C').

ACTIVITY - Cytostatic.

MECHANISM OF ACTION - None given.

USE - (A) and (B) are useful for targeted delivery of molecule e.g. a drug molecule (such as plasmid DNA, oligonucleotide, peptide, protein, antibody, small drug molecule and a rare earth molecule), a food, a magnet and a sensor molecule (that responds in a controlled and predictable manner to changes in temperature, pH, pressure, or the presence of another molecule), gadolinium, its complex or derivative in vivo, such as dendritic cells, hepatocytes, tumors or brain (all claimed).

ADVANTAGE - The combination has advantages of both solid nanoparticles and microemulsions to produce one pharmaceutically engineered gene delivery system, while avoiding problems associated with polyelectrolyte complexation. The nanoparticle systems can be engineered rapidly, reproducibly, and cost-effectively from the microemulsion precursors, in a one-step process and contained in one manufacturing vessel, vial or container, compared to the prior art methods. The solid nanoparticles are stable in biological fluids. The microemulsions have increased solubility and stability of drugs incorporated into the dispersed phase, increased absorption of drugs across biological membranes, ease and economy of scale-up, due to the requirement of inexpensive mixing equipment, and rapid assessment of the physical stability of the microemulsion, due to inherent clarity of the system. The ethanol/fluorocarbon microemulsion precursor comprises all the potentially biocompatible ingredients, which may not be removed when the solid nanoparticles are cured and isolated, the emulsion is well-defined and contains uniform nanoparticles (5 - 300 nm), reproducible to prepare without the use of high-torque mechanical mixing, microfluidization or homogenization, the formed solid nanoparticles have superior in vivo stability, and the cell-specific ligands can be easily incorporated into the system during or after the engineering process. In liquid hydrocarbon-in-water microemulsion, no additional material such as water is required to be added to form the microemulsion to cure the solid nanoparticles, but only cooling the microemulsion, high entrapment efficiency is achieved since the dispersed droplets are composed entirely of the matrix material, the dispersed phase is not limited to ethanol, and no organic solvents are needed to form the microemulsion precursors. MANUAL CODE: CPI: A12-V01; B03-B; B04-B01C; B04-B03C; B04-C02;

B04-C02A2; B04-C03C; B04-E08; B04-G01; B04-H06D; B04-J04A; B04-N03; B04-N04; B04-N06; B05-B01P; B06-D09; B10-A07; B10-A22; B10-C04E; B10-E04D; B10-H02B; B12-M03; B12-M09; D03-H01N; D05-B; D05-C11; D05-H11; D05-H12D1; D05-H12E

TECH

ORGANIC CHEMISTRY - Preferred Components: (a) is ethanol. (a') is solid at 25degreesC, has a melting point of 35 - 100degreesC, is water-insoluble, and is amphipathic having both hydrophobic and hydrophilic moieties. (b) is perflubron. (d) is ethylcellulose. (e) is a fluorosurfactant. (f) is selected from asialofetuin, mannan, mannose, folate or a saccharide. (e') is selected from hexadecyltrimethylammonium bromide, fatty alcohol and/or their derivatives. When (C) is anionic, it further comprises a positively charged drug or antigen coating (preferably

Tat peptide from HIV or nerve-growth factor). When (C) is cationic, it further comprises a negatively-charged drug or antigen coating (preferably DNA).

Preferred Composition: The oil phase is present as liquid droplets having a diameter of less than 100 nm. The continuous phase comprises water or an aqueous buffer present at concentration of greater than 95 w/w%. (e') is present at a concentration of 1 - 5000 mM in the microemulsion. The total concentration of molecule is 20 mug/ml - 5 mg/ml.

BIOLOGY - Preferred Components: (f) is an <u>antibody</u>. (C) is coated with a cell-specific ligand (h) comprising an <u>antibody</u>, carbohydrate, <u>peptide</u>, protein and/or their derivatives.

Preferred Method: (C) is coated with (h) comprising a mannan or <u>peptide</u> for targeting dendritic cells, a protein including asialofetuin, a polysaccharide including pullulan for targeting hepatocytes, folate and thiamine for targeting tumors, or choline or its derivative for targeting brain.

POLYMERS - Preferred Components: (g) is selected from emulsifying wax, polyoxyethylene sorbitan fatty acid ester, polyoxyethylene alkyl ether, polyoxyethylene stearate, phospholipids, fatty acid or fatty acid alcohol and/or their derivatives. (e') is selected from polyoxyethylene alkyl ether, polyoxyethylene sorbitan fatty acid ester, polyoxyethylene stearate and/or their derivatives.

Preferred Composition: (g) and (e') is present at a concentration of (0.1 - 30) mg/ml.

ABEX ADMINISTRATION - (C) is administered topically, intranasally, subcutaneously, intramuscularly, intravenously or orally (all claimed). EXAMPLE - Emulsifying wax (2 mg) was placed into six-7 ml glass scintillation vials. After melting at 50 - 55degreesC, water was added to form a homogenous milky slurry. Different volumes of a hexadecyltrimethylammonium bromide (CTAB) stock solution (50 mM in water) were added while stirring to obtain a final CTAB concentration of 5 - 30 mM. After 3 - 5 minutes, the milky slurry turned clear or stayed cloudy, depending on the amount of CTAB used. The droplet size of the microemulasion was measured at 55degreesC, microemulsions were then cooled down to room temperature while stirring to form nanoparticles. The nanoparticles suspension was diluted 10 times with water and particle size was measured. The droplet size of the warm microemulsions at 55degreesC were in the range of 30 - 70 nm and cured nanoparticles at 25degreesC were in the range of 60 - 120 nm. Thus the cationic nanoparticles comprising emulsifying wax (6 mg/ml) in water containing a final concentration of 15 mM CTAB were prepared, and free CTAB was separated from the cured nanoparticles using a Sephadex G-75 column. The particle size and zeta potential of the purified cationic nanoparticles was measured and found to be 99+/-27 nm and 35.8+/-2.3 mV, respectively. Plasmid DNA (CMV-beta-galactosidase) was coated on the surface of the nanoparticles by gently mixing the required amount of pDNA and nanoparticles suspension to obtain a final pDNA concentration of 400 mug/ml. After the addition of pDNA to the cationic nanoparticles, the particle size and zeta potential of the pDNA-coated nanoparticles was 245+/-25 nm and -47.7+/-1.2 mV, respectively. The change in particle size and zeta potential demonstrated that pDNA was successfully coated on the cationic nanoparticles. PDNA-coated nanoparticles and 'naked' DNA were administered to Balb/C mice (10 - 12 weeks old) by three different routes (intramuscular injection; subcutaneous injection, or by topical application to skin) on day 0, 7, and 14. The pDNA dose on each day was 40 mug. On day 28, the IgG titers in sera were determined. Sera IgG titers at day 28 resulting from immunization by pDNA-coated nanoparticles and 'naked' DNA after intramuscular and subcutaneous administration were comparable. The topical administration of formulations to skin was more effective. Mice immunized with pDNA-coated nanoparticles had an approximately 10-fold increase in

IgG titers over mice immunized with 'naked' pDNA.

AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 50 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

DOC. NO. CPI: C2001-163566 [61]

TITLE: Liquid biodegradable block copolymer composition, useful

as a drug delivery system for e.g. growth hormones, antibacterial agents, anticancer or antiinflammatory

agents

DERWENT CLASS: A96; B05; B07; P34

INVENTOR: CHOI I; CHOI I J; SEO M; SEO M H; SUH M H

PATENT ASSIGNEE: (CHOI-I) CHOI I; (SAMY-N) SAMYANG CORP; (SEOM-I) SEO M;

(SANY-N) SANYANG CORP

COUNTRY COUNT: 93

PATENT INFORMATION:

| PATENT NO |) KIN | ID DATE | WEEK | LA | PG | MAIN IPC |
|-----------|-----------|----------|-----------|----|-------|----------|
| WO 200104 | 45742 A1 | 20010628 | (200161)* | EN | 37[1] | |
| AU 200102 | 25550 A | 20010703 | (200164) | ΕN | | |
| KR 200106 | 63314 A | 20010709 | (200176) | KO | | |
| EP 12444 | 71 A1 | 20021002 | (200265) | ΕN | | |
| US 200300 | 082234 A1 | 20030501 | (200331) | EN | | |
| JP 200353 | 17886 W | 20030603 | (200346) | JA | 35 | |
| CN 141313 | 18 A | 20030423 | (200347) | ZH | | |
| MX 200200 | 06272 A1 | 20021201 | (200377) | ES | | |
| NZ 51955 | ō A | 20031219 | (200404) | ΕN | | |
| KR 416242 | 2 B | 20040131 | (200428) | KO | | |
| JP 361482 | 20 B2 | 20050126 | (200510) | JA | 18 | |
| AU 779713 | B B 2 | 20050210 | (200527) | ΕN | | |
| US 691678 | 38 B2 | 20050712 | (200546) | ΕN | | |
| MX 233253 | l B | 20051220 | (200637) | ES | | |
| CN 120492 | 24 C | 20050608 | (200655) | ZH | | |

APPLICATION DETAILS:

| PATENT NO KIND | APPLICATION DATE |
|-------------------|-------------------------|
| WO 2001045742 A1 | WO 2000-KR1508 20001221 |
| KR 2001063314 A | KR 1999-60349 19991222 |
| KR 416242 B | KR 1999-60349 19991222 |
| CN 1413118 A | CN 2000-817580 20001221 |
| EP 1244471 A1 | EP 2000-989005 20001221 |
| NZ 519555 A | NZ 2000-519555 20001221 |
| EP 1244471 A1 | WO 2000-KR1508 20001221 |
| US 20030082234 A1 | WO 2000-KR1508 20001221 |
| JP 2003517886 W | WO 2000-KR1508 20001221 |
| MX 2002006272 A1 | WO 2000-KR1508 20001221 |
| NZ 519555 A | WO 2000-KR1508 20001221 |
| JP 3614820 B2 | WO 2000-KR1508 20001221 |
| US 6916788 B2 | WO 2000-KR1508 20001221 |
| MX 233251 B | WO 2000-KR1508 20001221 |
| AU 2001025550 A | AU 2001-25550 20001221 |
| AU 779713 B2 | AU 2001-25550 20001221 |

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JP 2003517886 W
                                                   JP 2001-546681 20001221
       JP 3614820 B2
                                                   JP 2001-546681 20001221
      MX 2002006272 A1
                                                   MX 2002-6272 20020621
                                                   MX 2002-6272 20020621
      MX 233251 B
                                                   US 2002-169012 20020622
US 2002-169012 20020622
      US 20030082234 A1
       US 6916788 B2
                                                   CN 2000-817580 20001221
       CN 1204924 C
FILING DETAILS:
       PATENT NO KIND
                                            PATENT NO
      AU 779713 B2 Previous Publ AU 2001025550 A
JP 3614820 B2 Previous Publ JP 2003517886 W
KR 416242 B Previous Publ KR 2001063314 A
AU 2001025550 A Based on WO 2001045742 A
EP 1244471 A1 Based on WO 2001045742 A
JP 2003517886 W Based on WO 2001045742 A
MX 2002006272 A1 Based on WO 2001045742 A
NZ 519555 A Based on WO 2001045742 A
JP 3614820 B2 Based on WO 2001045742 A
AU 779713 B2 Based on WO 2001045742 A
US 6916788 B2 Based on WO 2001045742 A
MX 233251 B Based on WO 2001045742 A
       _____
PRIORITY APPLN. INFO: <u>KR 1999-60349</u> 19991222
INT. PATENT CLASSIF.:
            MAIN: A61K047-30; A61L027-00
                        A61K0031-167 [I,A]; A61K0031-167 [I,C]; A61K0031-185
 IPC RECLASSIF.:
                         [I,C]; A61K0031-192 [I,A]; A61K0031-337 [I,A];
                         A61K0031-337 [I,C]; A61K0031-403 [I,C]; A61K0031-405
                         [I,A]; A61K0031-407 [I,A]; A61K0031-407 [I,C];
                          A61K0031-513 [I,A]; A61K0031-513 [I,C]; A61K0031-545
                          [I,A]; A61K0031-545 [I,C]; A61K0031-60 [I,C];
                          A61K0031-616 [I,A]; A61K0031-65 [I,A]; A61K0031-65 [I,C];
                         A61K0031-662 [I,A]; A61K0031-662 [I,C]; A61K0031-7028
                          [I,C]; A61K0031-704 [I,A]; A61K0031-7042 [I,C];
                          A61K0031-7048 [I,A]; A61K0031-7135 [I,A]; A61K0031-7135
                          [I,C]; A61K0038-22 [I,A]; A61K0038-22 [I,C]; A61K0038-27
                          [I,A]; A61K0038-27 [I,C]; A61K0039-00 [I,A]; A61K0039-00
                          [I,C]; A61K0039-395 [I,A]; A61K0039-395
                           [I,C]; A61K0047-02 [I,C]; A61K0047-04 [I,A]; A61K0047-10
                           [I,A]; A61K0047-10 [I,C]; A61K0047-14 [I,A]; A61K0047-14
                           [I,C]; A61K0047-20 [I,A]; A61K0047-20 [I,C]; A61K0047-26
                           [I,A]; A61K0047-26 [I,C]; A61K0047-32 [I,A]; A61K0047-32
                           [I,C]; A61K0047-34 [I,A]; A61K0047-34 [I,C]; A61K0047-36
                           [I,A]; A61K0047-36 [I,C]; A61K0047-38 [I,A]; A61K0047-38
                           [I,C]; A61K0047-40 [I,A]; A61K0047-40 [I,C]; A61K0047-42
                           [I,A]; A61K0047-42 [I,C]; A61K0009-00 [I,A]; A61K0009-00
                           [I,C]; A61L0027-00 [I,A]; A61L0027-00 [I,C]; A61P0029-00
                           [I,A]; A61P0029-00 [I,C]; A61P0031-00 [I,C]; A61P0031-04
                           [I,A]; A61P0031-10 [I,A]; A61P0035-00 [I,A]; A61P0035-00
                           [I,C]; A61P0005-00 [I,A]; A61P0005-00 [I,C]
ECLA:
                         A61K0009-00M5D; A61K0047-10; A61K0047-32; A61K0047-34
USCLASS NCLM:
NCLS:
                        424/486.000
                         424/486.000; 514/012.000
BASIC ABSTRACT:
             WO 2001045742 A1 UPAB: 20060117
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 ${\tt NOVELTY}$ - A liquid polymeric composition capable of forming a physiologically active substance-containing implant in a living body is new.

DETAILED DESCRIPTION - A liquid polymeric composition capable of forming a physiologically active substance-containing implant in a living body comprises a water-soluble liquid polyethylene glycol derivative, a block copolymer which is insoluble in water but soluble in the polyethylene glycol derivative and an active substance.

INDEPENDENT CLAIMS are included for:

- (1) an implant formed from the composition; and
- (2) processes for preparing the composition.

USE - The composition is useful for forming active substance containing implants for drug delivery when injected into a body. MANUAL CODE: CPI: A12-V01; A12-V02; B02-Z; B04-C02A; B04-C02B1;

B04-C03; B04-C03C; B04-C03D; B04-D01; B04-H02B; B04-H05; B04-H06; B04-J05; B11-C04A; B12-M09; B14-A01; B14-C03; B14-H01

TECH

ORGANIC CHEMISTRY - Preferred Process: The composition is preferably made by dissolving the <u>polyethylene glycol</u> derivative, the block copolymer and the active substance in an organic solvent (especially acetonitrile, acetone, acetic acid, dimethylacetamide, ethanol, 2-propanol or dioxane) or a mixture of an organic solvent and water (1:4 to 4:1), sterilizing the solution by filtration and evaporating or lyophilizing the solution.

PHARMACEUTICALS - Preferred Composition: The composition preferably contains 10 to 95%, especially 30 to 70%, of the polyethylene glycol derivative, 5 to 80%, especially 20 to 50%, of the block copolymer and 1 to 40%, especially 1 to 30%, of the active substance. The block copolymer is preferably a di- or tri-block copolymer comprising a hydrophobic polymer A block and a hydrophilic polymer B block component. The hydrophobic polymer is preferably L-polylactide, D,L-polylactide, a copolymer of L- or D,L-lactide with glycolide, polyglycolide, polycaprolactone, a copolymer of lactic acid with caprolactone, polyhydroxy butyric acid, a copolymer of 1,4-dioxan-2-one with lactide or poly(p-dioxanone) with an average molecular weight of 500 to 25,000Da. The hydrophilic polymer is preferably polyethylene glycol or a copolymer of ethylene glycol and propylene glycol with an average molecular weight of 100 to 10,000Da. The block copolymer preferably comprises 20 to 80% of the hydrophilic polymer. The polyathylana glycol derivative is preferably of formula (I) or (II) and has an average molecular weight of 200 to 1,000Da. R1-X-CH2CH2(OCH2CH2)1-X-R1 (I)

R2OCO(CH2)qCO(OCH2CH2)p-OCO(CH2)qCOOR2 (II)

R1 = H, (CH2) mCH3 or CO(CH2) mCH3;

m = 0 to 17;

X = O, NH or S;

1 = 1 to 100;

 $R2 = (CH2) \times CH3$, H, Na, Ca, Mg or Zn;

x = 0 to 17;

p = 1 to 100; and

q = 0 to 6.

The active substance is preferably a pertide or protein drug (especially human growth hormone, porcine growth hormone, leukocyte growth factor, erythrocyte growth factor, macrophage growth factor, tumor necrosis factor, epithelial growth factor, platelet -derived growth factor, interferon-alpha, beta or gamma, interleukin-2, calcitonin, nerve growth factor, growth hormone releasing factors, angiotensin, luteinizing hormone releasing hormone (LHRH), LHRH agonist, insulin, thyrotropin releasing hormone, angiostatin, endostatin, somatostatin, glucagon, endorphin, bacitracin, mergain, colistin, monoclonal antibody, vaccine or bone growth factor), antibacterial agent (minocycline, tetracycline, ofloxacin, phosphomycin, mergain, profloxacin, ampicillin,

penicillin, doxycycline, thienamycin, cephalosporin, norcadicin, gentamycin, neomycin, kanamycin, paromomycin, micronomycin, amikacin, tobramycin, dibekacin, cefotaxim, cephaclor, erythromycin, ciprofloxacin, levofloxacin, enoxacin, vancomycin, imiphenem or fucidic acid), anticancer agent (paclitaxel, taxotare, adriamycin, endostatin, angiostatin, mitomycin, bleomycin, cisplatin, carboplatin, doxorubicin, daunorubicin, idarubicin, 5-fluorouracil, methotrexate or actinomycin-D) or antiinflammatory agent (lysozyme, acetaminophen, aspirin, ibuprofen, diclofenac, indomethacin, piroxicam, fenoprofen, flubiprofen, ketoprofen, naproxen, suprofen, loxoprofen, cinoxicam or tenoxicam). The composition may include 1 to 10% of surfactants (especially polysorbate, sodium dodecylsulfate, polyvinyl pyrrolidone, poloxamers, glyceryl monooleate, glyceryl monostearate or polyoxyethylene alkyl ether), inorganic salts (sodium chloride, calcium chloride, zinc chloride, magnesium chloride, calcium carbonate, zinc carbonate, zinc acetate, zinc lactate, magnesium hydroxide, aluminum chloride, aluminum hydroxide or zinc oxide), sugars (especially mannitol, sorbitol, glucose, xylitol, trehalose, sorbose, sucrose, galactose, dextran, dextrose, fructose or lactose) and/or natural polymers (especially cyclodextrin, gelatin, albumin, hyaluronic acid, chitosan or sodium carboxymethylcellulose). ABEX EXAMPLE - Lactide (14.19 g), glycolide (3.81 g), polyethylene glycol 1000 (7.5 g) and tin octoate (0.18 g) were heated to 120 to 145 degreesC for 12hours and dissolved in CHCl3. The solution was added to diethyl ether (Et2O) and the resulting polymer was collected, dissolved in chloroform (CHCl3) and reprecipitated by addition to Et20. The precipitate was collected and dried under vacuum to give the block copolymer. Polyethylene glycol 300 (30 g), acetic anhydride (24 g) and anhydrous zinc dichloride (0.5 g) were heated to reflux for 12 hours and dissolved in methylene chloride (CH2Cl2). The mixture was added to Et2O and the precipitate was collected, purified with Et20 and dried under vacuum. Human growth hormone (100 mg), block copolymer (400 mg), polyethylene glycol 300 (450 mg) and

single dose sterile disposable syringes.
AN.S DCR-89804
CN.P CALCITONIN
SDCN R01874
SDRN 1874

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 51 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

DOC. NO. CPI: C2000-151720 [45]
DOC. NO. NON-CPI: N2000-374010 [45]

TITLE: Particle for oral administration of biopolymeric drugs,

gelatin (50 mg) were dissolved in 60% aqueous acetic acid and filtered through a 0.22 microm filter. The solution was lyophilized and filled into

e.g. proteins or nucleic acids, comprises active

ingredient in a substrate and a coating of mucoadhesive

for attachment to intestinal mucosa

DERWENT CLASS: A96; B04; B05; B07; D16; P34

INVENTOR: DEHLINGER P; DEHLINGER P J; FERRARI M; FRIEND D; FRIEND D

R; GROVE C; GROVE C F; MARTIN F; MARTIN F J

PATENT ASSIGNEE: (REGC-C) UNIV CALIFORNIA; (IMED-N) IMEDD

COUNTRY COUNT: 23

PATENT INFORMATION:

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AU 2000024947 A 20000801 (200054) EN
                                                                                   <--
      EP 1140024 A2 20011010 (200167) EN US 6355270 B1 20020312 (200221) EN
                                                                                   <--
                                                                                  <--
      JP 2002534485 W 20021015 (200282) JA 54
EP 1140024 B1 20070829 (200757) EN
DE 60036193 E 20071011 (200768) DE
                                                                                  <--
APPLICATION DETAILS:
      PATENT NO KIND
                                               APPLICATION DATE
      WO 2000041740 A2
                                               WO 2000-US362 20000107
      US 6355270 B1 Provisional
                                               US 1999-115420P 19990111
      US 6355270 B1 Provisional
                                               US 1999-115424P 19990111
      US 6355270 B1
                                               US 2000-479389 20000106
      AU 2000024947 A
                                               AU 2000-24947 20000107
      DE 60036193 E
                                               DE 2000-636193 20000107
                                               EP 2000-903159 20000107
      EP 1140024 A2
                                               EP 2000-903159 20000107
      EP 1140024 B1
                                               EP 2000-903159 20000107
      DE 60036193 E
      JP 2002534485 W
                                               JP 2000-593349 20000107
                                               WO 2000-US362 20000107
      EP 1140024 A2
                                               WO 2000-US362 20000107
      JP 2002534485 W
                                               WO 2000-US362 20000107
      EP 1140024 B1
                                               WO 2000-US362 20000107
      DE 60036193 E
FILING DETAILS:
      PATENT NO KIND
                                               PATENT NO
       ______
      DE 60036193 E Based on EP 1140024 A
AU 2000024947 A Based on WO 2000041740 A
EP 1140024 A2 Based on WO 2000041740 A
JP 2002534485 W Based on WO 2000041740 A
EP 1140024 B1 Based on WO 2000041740 A
DE 60036193 E Based on WO 2000041740 A
INT. PATENT CLASSIF.:
      MAIN: A61K038-00; A61M
   IPC ORIGINAL:
                      A61K0038-18 [I,A]; A61K0038-18 [I,A]; A61K0038-18 [I,C];
                       A61K0038-18 [I,C]; A61K0038-20 [I,A]; A61K0038-20 [I,A];
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A61K0038-20 [I,C]; A61K0038-20 [I,C]; A61K0038-21 [I,A]; A61K0038-21 [I,A]; A61K0038-21 [I,C]; A61K0038-21 [I,C]; A61K0038-28 [I,A]; A61K0038-28 [I,A]; A61K0038-28 [I,C]; A61K0047-46 [I,A]; A61K0047-46 [I,A]; A61K0047-46 [I,A]; A61K0009-16 [I,C]; A61K0009-16 [I,C]; A61K0009-16 [I,C]

A61K0031-7088 [I,A]; A61K0031-7088 [I,C]; A61K0038-00 [I,A]; A61K0038-00 [I,C]; A61K0038-21 [I,A]; A61K0038-21 [I,C]; A61K0038-22 [I,C]; A61K0038-26 [I,A]; A61K0038-28 [I,A]; A61K0038-28

[I,C]; A61K0047-10 [I,A]; A61K0047-10 [I,C]; A61K0047-14 [I,A]; A61K0047-14 [I,C]; A61K0047-22 [I,A]; A61K0047-22

[I,C]; A61K0047-40 [I,A]; A61K0047-40 [I,C]; A61K0047-42

[I,C]; <u>A61K0039-395</u> [I,A]; <u>A61K0039-395</u>

IPC RECLASSIF.:

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[I,C]; A61K0047-34 [I,A]; A61K0047-34 [I,C]; A61K0047-36 [I,A]; A61K0047-36 [I,C]; A61K0047-38 [I,A]; A61K0047-38
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[I,A]; A61K0047-42 [I,C]; A61K0047-44 [I,A]; A61K0047-44
[I,C]; A61K0047-48 [I,A]; A61K0047-48 [I,C]; A61K0009-14
[I,A]; A61K0009-14 [I,C]; A61K0009-16 [I,A]; A61K0009-16
[I,C]; A61K0009-26 [I,A]; A61K0009-26 [I,C]; A61K0009-48
[I,A]; A61K0009-48 [I,C]; A61K0009-52 [I,A]; A61K0009-52
[I,C]; A61P0035-00 [I,A]; A61P0035-00 [I,C]; A61P0043-00
[I,A]; A61P0043-00 [I,C]; C12N0015-09 [I,A]; C12N0015-09
[I,C]; G03F0007-00 [I,A]; G03F0007-00 [I,C]
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ECLA:

A61K0009-00Z8; A61K0009-16K2; A61K0009-16P4;

A61K0009-48Z; G03F0007-00

USCLASS NCLM:

424/489.000

NCLS:

424/185.100; 424/450.000; 424/451.000; 514/002.000;

514/021.000; 530/300.000; 530/350.000

BASIC ABSTRACT:

WO 2000041740 A2 UPAB: 20071024

NOVELTY - Particle (A) for oral delivery of a biopolymeric drug (I) (e.g. polypeptide, protein or nucleic acid), comprising a substrate having at least 1 reservoir containing (I) in releasable form and opening to 1 face of the substrate, which is coated with a mucoadhesive agent (II) for the attachment of (A) to the intestinal mucosa so that (I) is released directly into the lining, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an oral composition containing many (A); and
- (2) a microfabrication method comprising exposing a sheet of particleforming material to a photoablative light source through a mask, so that a network pattern corresponding to the required shape and size of (A) is produced, and continuing exposure until (A) are formed.

USE - (A) are used for the oral delivery of (I) to the intestines, e.g., the delivery of erythropoietin (for treating anemia), interferons (hepatitis), interleukins (cancer), insulin (diabetes mellitus), calcitonin (osteoporosis) and antisense oligonucleotides (cancer, infections, inflammation).

ADVANTAGE - (II) ensure attachment to the intestines and their shape, size, density and composition can be adjusted to control contact with the gut wall. (A) are too large to undergo endocytosis by gut epithelial cells and they can be labeled for detection or visualization. They may also include penetration enhancers; protease inhibitors or agents that control release rate of (I), to improve bioavailability.

MANUAL CODE:

CPI: A12-V01; B04-C02A; B04-C02A3; B04-C02B; B04-C03B; B04-E01; B04-E06; B04-H02; B04-H05; B04-J03A; B04-N04; B11-C06; B11-C09; B12-M11E; B14-A01; B14-A02; B14-C03; B14-H01B; B14-N01; B14-S04; B14-S11; D05-H07; D05-H12A; D05-H12B; D05-H12D2

TECH

BIOTECHNOLOGY - Preferred Materials: (I) is granulocyte-macrophage colony-stimulating factor (GM-CSF), an interferon, interleukin, vasopressin, growth hormone releasing factor, relaxin, somatostatin, antibody, insulin, arterial naturetic factor, glucagon, desmopressin, calcotonon, angiogenic factors (e.g. VEGF), LHRH analogs, paptide antigens, vaccines and (antisense) oligonucleotides. (II) may be e.g. an agglutinin from wheat germ, Ulex europaeus or Phaseolus vulgaris, lectins of asparagus pea (Lotus tetragonolobus), tomato or Mycoplasma gallisepticum, the B-subunit of cholera toxin, Escherichia coli type 7 fimbriae, vitamin B12, riboflavin, folate or iron/transferrin.

PHARMACEUTICALS - Preferred Particles: The particles are disks 0.1-1 mm in diameter and with a density of 0.95-1.05 g/cc. Additional reservoirs may also be included containing a permeation enhancer (e.g. zonula occludens toxin of Vibrio cholerae), or a peptidase inhibitor

(e.g. aprotinin). The reservoir containing (I) may also include an agent that delays the dissolution or release of (I), preferably gelatin, polyethylene glycol, a fatty acid and/or triglyceride,

polyvinyl pyrrolidone, starch, cellulose ester (e.g. HPMC), hydrocolloidal gum and/or mucilages (e.g. gum arabic, guar gum, gum, tragacanth), wax (e.g. carnuba, bees, polyacrylic acid derivatives and esters), shellac, cellulose acetate, phthalate or carboxy methylcellulose. The substrate is particularly polycarbonate or polyester and the face not coated with (II) is covered by a non-porous laminate backing.

Preferred Composition: The particles preferably comprise an enteric coating that encapsulates the particles, remains intact in esophagus and stomach but dissolves, at pH 6-6.8, in the intestinal lumen. Alternatively the ChronoSet (RTM) system is used to provide release after a selected time, particularly in the middle of the intestines.

Preparation: The sheet of material is grafted, on the face to be coated with (II), with a layer of reactive amino or thiol groups by plasma (glow) discharge.

POLYMERS - Preferred Substrate: Suitable substrate materials are polycarbonate and polyester. A preferred enteric coating is Eudragit L100 or S100 (methacrylic acid-methacrylate copolymers).

Preferred Excipients: Suitable polymeric excipients are polyethylene glycol, polyvinyl pyrrolidone, polyacrylic acid derivatives and esters, cellulose acetate-phthalate and carboxymethyl cellulose.

ABEX ADMINISTRATION - The particles are useful for the oral delivery of therapeutic compounds.

EXAMPLE - A roll of 50-75 micro m thick track-etch polycarbonate, containing pores (reservoirs) that are 10-12 micro m in diameter and 12-25 micro m deep, was exposed to an ammonia plasma to introduce primary amino groups at one surface, then reacted with a heterobifunctional reagent to generate thiol-reactive maleimide groups. The material was then exposed to a solution of lectin (from wheat germ) that had been thiolated, washed and then dried. The reservoirs were filled with a 50 mg/ml solution of erythropoietin in phosphate-buffered saline, under reduced pressure to expel air, and dried and the sheet was then passed through a disk-punch apparatus to produce particles.

AN.S DCR-110049

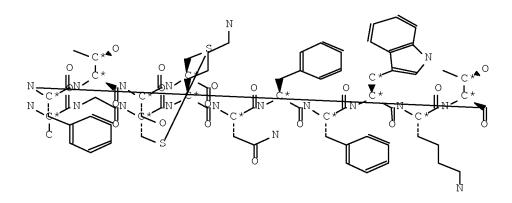
CN.P VASOPRESSIN

CN.S 1-[19-Amino-13-benzyl-10-(2-carbamoyl-ethyl)-7-carbamoylmethyl-16-(4-hydroxy-ben zyl)-6,9,12,15,18-pentaoxo-1,2-dithia-5,8,11,14,17-pentaaza-cycloeicosane-4-carb onyl]-pyrrolidine-2-carboxylic acid [5-amino-1-(carbamoylmethyl-carbamoyl)-penty 1]-amide

SDCN R06995

AN.S DCR-107421 CN.P SOMATOSTATIN

SDCN R02073 SDRN 2073



AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 52 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

DOC. NO. CPI: C2000-137752 [39]

TITLE: New aerosol formulations for the delivery of agents such

as peptidic drugs, vaccines and hormones,

containing a phospholipid and a membrane-mimetic

amphiphile to facilitate absorption

DERWENT CLASS: A96; B04; B05; B07; D16

INVENTOR: MODI P; WEBB S R

PATENT ASSIGNEE: (GENE-N) GENEREX PHARM INC

COUNTRY COUNT: 89

PATENT INFORMATION:

| PATENT NO | KIND DATE | WEEK | LA | PG | MAIN IPC | |
|---------------|-------------|------------|----|-------|----------|---|
| WO 2000037053 | A1 20000629 | (200039)* | EN | 36[0] | | < |
| AU 2000018520 | A 20000712 | (200048) | ΕN | | | < |
| US 6271200 | B1 2001080 | 7 (200147) | ΕN | | | < |
| EP 1140020 | A1 2001101 | (200167) | ΕN | | | < |
| NZ 512046 | A 20020426 | (200236) | ΕN | | | < |
| MX 2001006379 | A1 20020501 | L (200368) | ES | | | < |
| EP 1140020 | B1 20040303 | 3 (200417) | ΕN | | | |
| DE 69915347 | E 20040408 | 3 (200425) | DE | | | |
| JP 2004537493 | W 2004121 | (200482) | JA | 63 | | |
| MX 230980 | В 2005093 | (200617) | ES | | | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION DATE | |
|---|--|--|--|
| WO 2000037053 A US 6271200 B1 F US 6271200 B1 DE 69915347 E EP 1140020 A1 EP 1140020 B1 DE 69915347 E NZ 512046 A EP 1140020 A1 NZ 512046 A EP 1140020 B1 DE 69915347 E JP 2004537493 W MX 2001006379 A AU 2000018520 A JP 2004537493 W MX 2001006379 A MX 230980 B MX 230980 B | rovisional | WO 1999-CA1233 19991216 US 1998-113242F 19981221 US 1999-397701 19990916 DE 1999-615347 19991216 EFF 1999-962011 19991216 EFF 1999-962011 19991216 EFF 1999-962011 19991216 WO 1999-CA1233 19991218 AU 2000-18520 19991216 JFF 2000-589164 19991216 MX 2001-6379 20010621 WO 1999-CA1233 19991218 | |
| FILING DETAILS: | | | |
| PATENT NO | | PATENT NO | |
| JP 2004537493 | E Based on W Based on | | |
| PRIORITY APPLN. INFO: | us 1999-397701 us 1998-113242p | 19990916 | |
| INT. PATENT CLASSIF.: MAIN: | | The property of the property o | |
| IPC RECLASSIF.: | A61K0031-7105 [I,A] [I,A]; A61K0031-711 [I,C]; A61K0038-21 [I,A]; A61K0038-22 [I,C]; A61K0038-26 [I,A]; A61K0038-27 [I,C]; A61K0039-00 A61K0039-395 [I,A]; A61K0047-06 [I,C]; A61K0047-10 [I,A]; A61K0047-12 [I,C]; A61K0047-12 [I,C]; A61K0047-14 [I,A]; A61K0047-24 [I,A]; A61K0047-34 [I,C]; A61K0047-44 [I,A]; | ; A61K0031-7105 [I,C]; A61K0031-711 [I,C]; A61K0038-00 [I,A]; A61K0038 [I,A]; A61K0038-21 [I,C]; A61K0038 [I,C]; A61K0038-23 [I,A]; A61K0038 [I,A]; A61K0038-26 [I,C]; A61K0038 [I,C]; A61K0038-28 [I,A]; A61K0038 [I,A]; A61K0039-00 [I,C]; A61K0039-395 [I,C]; A61K0047-06 [I,A]; A61K0047-08 [I,C]; A61K0047-08 [I,C]; A61K0047-10 [I,C]; A61K0047-34 [I,C]; A61K0047-38 [I,C]; A61K0047-38 [I,C]; A61K0047-38 [I,C]; A61K0047-44 [I,C]; A61K0048-00 [I,C]; A61K0009-00 [I,C]; A61 | 1-00 1-22 1-23 1-27 1-28 1; 1; 1; 1; 1; 1; 1; 1; 1; 1; 1; 1; 1; 1 |

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A61K0009-12 [I,A]; A61K0009-12 [I,C]; A61K0009-127 [I,A]; A61K0009-127 [I,C]; A61K0009-52 [I,C]; A61K0009-66 [I,A]; A61P0019-00 [I,C]; A61P0019-10 [I,A]; A61P0029-00 [I,A]; A61P0029-00 [I,C]; A61P0031-00 [I,C]; A61P0031-04 [I,A]; A61P0037-00 [I,A]; A61P0037-00 [I,A]; A61P0005-10 [I,A]; A61P0005-18 [I,A]; A61P0005-48 [I,A]; A61P0007-00 [I,C]; A61P0007-00 [I,C]; A61P0007-01 [I,C]; A61P0007-01 [I,A]; A61F0007-01 [I,A]; A61F0007-01 [I,A]; A61F0007-01 [I,C]; A61F0007-01 [I,A]; A61K0009-00M18D; A61K0009-00M20B6; A61K0009-127
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ECLA:

BASIC ABSTRACT:

WO 2000037053 A1 UPAB: 20050830

NOVELTY - New aerosol formulations for delivery of pharmaceutical agents, contain the agent, water, an alkali metal alkyl sulfate, a membrane-mimetic amphiphile, a phospholipid, a phenol and a propellant.

DETAILED DESCRIPTION - A novel aerosol pharmaceutical formulation with multilamellar vesicles comprises:

- (a) a pharmaceutical agent;
- (b) water;
- (c) an alkali metal 8-22C alkyl sulfate in a concentration of 1-10 %, by weight;
- (d) at least one membrane-mimetic amphiphile, which is lauramidopropyl betain, lauramide monoisopropanolamide, sodium cocoamphopropionate, bishydrxyopropyl dihydroxypropyl stearammonium chloride, polyoxyethylene dihydroxypropyl stearammonium chloride, dioctadecyldimethlammonium chloride, sulfosuccinates, stearamide DEA, sodium tauro dihydro fusidate, fusidic acid, alkali metal isostearyl lactylates, alkaline earth metal isostearyl lactylates, panthenyl triacetate, cocamidopropyl phosphatidyl PG-diammonium chloride, strearamidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidylcholine, polysiloxy pyrrolidone linoleyl phospholipid, octylphenoxypolyethoxyethanol or combinations;
- (e) at least one phospholipid (I), selected from phospholipid GLA (glycolic, lactic acid), phosphatidyl serine, phosphatidylethanolamine, inositolphosphatides, dioleoylphosphatidylethanolamine, polysiloxy pyrrolidone linoleyl phospholipid sphingomyelin, ceramides, cephalin, triolein, saturated lecithin or unsaturated lecithin, lysolecithin, or combinations;
- (f) a phenol selected from phenol and methyl phenol in a concentration of 1-10 %, by weight; and
- (g) a propellant selected from 1-2C dialkyl ether, butanes, fluorocarbon propellant, H-containing fluorocarbon propellant, chlorofluorocarbon propellant, H-containing chlorofluorocarbon propellant, or mixtures.

The amount of each membrane-mimetic amphiphile and phospholipid is present in a concentration of 1-10 %, by weight, and the total concentration of membrane-mimetic amphiphiles and phospholipids is at most 50 %, by weight.

INDEPENDENT CLAIMS are also included for the following:

- (1) making a pharmaceutical composition comprising:
- (a) mixing in a high shear mixer a proteinic pharmaceutical agent, water, an alkali lauryl sulfate in a concentration of 1-10 %, by weight, at least one membrane-mimetic amphiphile and at least one (I), the amphiphile is selected from hyaluronic acid and its salts lauramidopropyl betain, lauramide monoisopropanolamide, sodium cocoamphopropionate, bishydroxypropyl dihydroxypropyl stearammonium chloride, dioctadecylimethylammonium chloride, sulfosuccinates, stearamide DEA (diethylaniline), gamma-linoleic acid, borage oil, evening primrose oil, monoolein, sodium tauro dihydro fusidate, fusidic acid, alkali metal isostearyl lactylates, alkaline earth metal isostearyl lactylates, panthenyl triacetate, cocamidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidylcholine, polysiloxy pyrrolidone linoleyl phospholipid, trihydroxy-oxo-cholanylglycine and alkali metal salts, and octylphenoxypolyethoxyethanol,

polydecanol X-lauryl ether and polydecanol X-oleyl ether, where X is 9-20, the amount of each membrane mimetic amphiphile and phospholipid is present in a concentration of 1-10 %, by weight, and the total concentration of membrane mimetic amphihiles and phospholipids is at most 50 %, by weight, the mixing being continued until the composition is in multimellar vesicle form;

- (b) adding a phenol selected from phenol, methyl phenol and mixtures; and
- (c) dispensing the resulting formulation into an aerosol container and charging the container with a propellant;
- (2) a metered dose aerosol dispenser containing the novel aerosol pharmaceutical formulation with multilamellar vesicles.

USE - The compositions can be used for the delivery of large-molecule pharmaceuticals such as <u>pertidic</u> drugs, vaccines and hormones by the oral and nasal membranes, or by pulmonary access (claimed).

ADVANTAGE - The compositions enhance the penetration of drugs through the pores and facilitate the absorption of the drugs to reach therapeutic levels in the plasma. The multilamellar liposomes are very stable and are smaller than the pores of the gastrointestinal tract. MANUAL CODE: CPI: A12-V01; B01-D02; B02-C02; B03-A; B04-A07A;

B04-B01B; B04-B03C; B04-C01C; B04-C02E; B04-C02F; B04-E01; B04-F01; B04-G01; B04-H05; B04-J02; B04-J03A; B04-J04A; B04-J05; B04-N02; B04-N04; B04-N06; B05-A01B; B05-B01P; B10-E02; B10-E04C; B10-H01; B10-H02B; B10-J02; B11-C03; B12-M01A; B12-M01B; D05-H07

TECH

ORGANIC CHEMISTRY - Preferred Formulation: The 8-22C metal alkyl sulfate is sodium lauryl sulfate. The propellant may be e.g. H-containing chlorofluorocarbons, H-containing fluorocarbons, dimethyl ether and diethyl ether. The amphiphile is hyaluronic acid, or salt or mixtures of it, in a concentration of 5 %, by weight. The formulation contains sodium lauryl sulfate, stearamidopropyl phosphatidyl PG-diammonium chloride and ceramide, or borage amidopropyl phosphatidyl PG-diammonium chloride and lecithin.

Preferred Method: The method of mixing is a high turbulence or high shear method of mixing. (I) is injected at high velocity through at least one nozzle into an aqueous phase of the membrane-mimetic amphiphile, alternatively the amphiphile is injected, in liquid form, at high velocity through at least one nozzle into an aqueous phase of (I), or (I) and the amphiphile are injected through nozzles at high velocity, into a mixing chamber. The alkali metal lauryl sulfate is present with either (I) or the amphiphile. The nozzles have 0.5-1.0 mm diameters, and the liquid velocity is 0-15 m/s. The ratio of the amphiphile: (I) is 5-20:1. PHARMACEUTICALS - Preferred Agent: The pharmaceutical agent may be e.g. insulin, heparin, low molecular weight heparin, hirugen, hirulos, hirudin, interferons, interleukins, cytokines, mono and polyclonal antibodies, chemotherapeutic agents, vaccines, glycoproteins, bacterial toxoids, hormones, calcitonins, insulin-like growth factors (IGF), glucagon-like peptides (GLP-1 or GLP-2), large molecule antibiotics, protein based thrombolytic compounds, platelet inhibitors, DNA, RNA, gene therapeutics, antisense oligonucleotides, opioids, narcotics, analgesics, non-steroidal antiinflammatory drugs, steroids, retinoids, anesthetics, hypnotics or pain killers.

ABEX ADMINISTRATION - The formulation is sprayed into a buccal cavity of a human, without inhalation (claimed).

EXAMPLE - None given.

AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

L147 ANSWER 53 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN CROSS REFERENCE: 2001-638992; 2002-147516; 2004-203728; 2004-257146 DOC. NO. CPI: C2000-140080 [40]

TITLE: New aerosol formulations for the delivery of agents such

as peptidic drugs, vaccines and hormones,

containing at least 3 micelle forming compounds, to

facilitate absorption

DERWENT CLASS: A96; B04; B05; B07; D16; P34

INVENTOR: MODI P

(GENE-N) GENEREX PHARM INC; (MODI-I) MODI P PATENT ASSIGNEE:

COUNTRY COUNT:

PATENT INFORMATION:

| PA] | CENT NO | KINI | D DATE | WEEK | LA | PG | MAIN IPC |
|------------------------|-------------|------|----------|-----------|----|-------|----------|
| WO | 2000037051 | A1 | 20000629 | (200040)* | EN | 45[0] | |
| AU | 2000018518 | Α | 20000712 | (200048) | EN | | |
| ΕP | 1140019 | A1 | 20011010 | (200167) | EN | | |
| US | 6312665 | В1 | 20011106 | (200170) | ΕN | | |
| US | 6375975 | В1 | 20020423 | (200232) | ΕN | | |
| US | 6436367 | В1 | 20020820 | (200257) | ΕN | | |
| US | 6451286 | В1 | 20020917 | (200264) | ΕN | | |
| NZ | 512188 | А | 20021025 | (200274) | ΕN | | |
| JΡ | 2002532536 | W | 20021002 | (200279) | JA | 54 | |
| US | 20030035831 | A1 | 20030220 | (200316) | ΕN | | |
| ΑU | 760445 | В | 20030515 | (200337) | ΕN | | |
| ΕP | 1140019 | В1 | 20030625 | (200349) | EN | | |
| US | 20030157029 | A1 | 20030821 | (200356) | ΕN | | |
| DE | 69909127 | E | 20030731 | (200357) | DE | | |
| ΕP | 1338272 | A1 | 20030827 | (200357) | ΕN | | |
| $\mathbb{M}\mathbb{X}$ | 2001006380 | A1 | 20020501 | (200368) | ES | | |
| ES | 2203227 | Т3 | 20040401 | (200425) | ES | | |
| MX | 231873 | В | 20051107 | (200634) | ES | | |
| US | 7087215 | В2 | 20060808 | (200652) | EN | | |
| JP | 3818851 | В2 | 20060906 | (200659) | JA | 20 | |
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APPLICATION DETAILS:

| WO 2000037051 A1 WO 1999-CA1231 19991216 US 6312665 B1 Provisional US 1998-113239P 19981221 US 6375975 B1 Provisional US 1998-113239P 19981221 US 6436367 B1 Provisional US 1998-113239P 19981221 US 6451286 B1 Provisional US 1998-113239P 19981221 US 20030035831 A1 Provisional US 1998-113239P 19981221 US 7087215 B2 Provisional US 1998-113239P 19981221 US 6312665 B1 CIP of US 1999-251464 19990217 US 6451286 B1 CIP of US 1999-251464 19990217 US 6451286 B1 CIP of US 1999-251464 19990217 US 6451286 B1 CIP of US 1999-251464 19990217 US 20030035831 A1 CIP of US 1999-251464 19990217 US 20030157029 A1 CIP of US 1999-251464 19990217 US 7087215 B2 CIP of US 1999-251464 19990217 US 6312665 B1 US 1999-386284 19990831 US 6375975 B1 CIP of US 1999-386284 19990831 | PATENT NO KIND | APPLICATION DATE |
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| US 6375975 B1 Provisional US 1998-113239P 19981221 US 6436367 B1 Provisional US 1998-113239P 19981221 US 6451286 B1 Provisional US 1998-113239P 19981221 US 20030035831 A1 Provisional US 1998-113239P 19981221 US 20030157029 A1 Provisional US 1998-113239P 19981221 US 7087215 B2 Provisional US 1998-113239P 19981221 US 6312665 B1 CIP of US 1999-251464 19990217 US 6436367 B1 US 1999-251464 19990217 US 6451286 B1 CIP of US 1999-251464 19990217 US 20030035831 A1 CIP of US 1999-251464 19990217 US 20030157029 A1 CIP of US 1999-251464 19990217 US 7087215 B2 CIP of US 1999-251464 19990217 US 6312665 B1 US 1999-251464 19990217 US 7087215 B2 CIP of US 1999-251464 19990217 US 6312665 B1 US 1999-386284 19990831 | WO 2000037051 A1 | WO 1999-CA1231 19991216 |
| US 6436367 B1 Provisional US 1998-113239P 19981221 US 6451286 B1 Provisional US 1998-113239P 19981221 US 20030035831 A1 Provisional US 1998-113239P 19981221 US 20030157029 A1 Provisional US 1998-113239P 19981221 US 7087215 B2 Provisional US 1998-113239P 19981221 US 6312665 B1 CIP of US 1999-251464 19990217 US 6436367 B1 US 1999-251464 19990217 US 6451286 B1 CIP of US 1999-251464 19990217 US 20030035831 A1 CIP of US 1999-251464 19990217 US 20030157029 A1 CIP of US 1999-251464 19990217 US 7087215 B2 CIP of US 1999-251464 19990217 US 6312665 B1 US 1999-251464 19990217 US 6312665 B1 US 1999-386284 19990831 | US 6312665 B1 Provisional | US 1998-113239P 19981221 |
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| US 6312665 B1 | US 20030157029 A1 CIP of | us 1999-251464 19990217 |
| | US 7087215 B2 CIP of | us 1999-251464 19990217 |
| US 6375975 B1 CIP of US 1999-386284 19990831 | US 6312665 B1 | us 1999-386284 19990831 |
| | US 6375975 B1 CIP of | US 1999-386284 19990831 |

| | | | | 10/303,331 |
|----|-----------------|------|----|---|
| US | 6451286 B1 CIP | of | | US 1999-386284 19990831 |
| US | 20030035831 A1 | CIP | of | US 1999-386284 19990831 |
| US | 20030157029 A1 | CIP | of | US 1999-386284 19990831 |
| US | 7087215 B2 CIP | of | | <u>US 1999-386284 19990831</u> |
| DE | 69909127 E | | | กต 1999609127 19991216 |
| ΕP | 1140019 A1 | | | EP 1999-962009 19991216 |
| EP | 1140019 B1 | | | EP 1999-962009 19991216 |
| DE | 69909127 E | | | EP 1999-962009 19991216 |
| ΕP | 1338272 A1 Div | Ex | | EP 1999-962009 19991216 |
| ES | 2203227 T3 | | | EP 1999-962009 19991216 |
| | 512188 A | | | NZ 1999-512188 19991216 |
| EΡ | 1140019 A1 | | | WO 1999-CA1231 19991216 |
| NZ | 512188 A | | | WO 1999-CA1231 19991216 |
| JΡ | 2002532536 W | | | WO 1999-CA1231 19991216 |
| ΕP | 1140019 B1 | | | WO 1999-CA1231 19991216 |
| DE | 69909127 E | | | <u>WO 1999-CA1231 19991216</u> |
| MX | 2001006380 A1 | | | WO 1999-CA1231 19991216 |
| MX | 231873 B | | | <u>WO 1999-CA1231 19991216</u> |
| ΑU | 2000018518 A | | | WO 1999-CA1231 19991216 AU 2000-18518 19991216 AU 2000-18518 19991216 |
| ΑU | 760445 B | | | <u> AU 2000-18518 19991216</u> |
| | 2002532536 W | | | <u>JP 2000-589162 19991216</u> |
| | 6375975 B1 | | | <u>US 2000-519285 20000306</u> |
| | 6451286 B1 CIP | | | <u>US 2000-519285 20000306</u> |
| | 20030035831 A1 | | | <u>US 2000-519285 20000306</u> |
| | 20030157029 A1 | | of | US 2000-519285 20000306 |
| | 7087215 B2 CIP | of | | TIS 2000-519285 20000306 |
| | 6451286 B1 | | | US 2000-574504 20000519 |
| | 20030035831 A1 | | | <u>us 2000-574504 20000519</u> |
| | 20030157029 A1 | | of | <u> US 2000-574504 20000519</u> |
| | 7087215 B2 CIP | of | | <u>US 2000-574504 20000519</u> |
| | 2001006380 A1 | | | MX 2001-6380 20010621 |
| | 231873 B | | | MX 2001-6380 20010621 |
| | 20030157029 A1 | | | <u>US 2002-222240 20020816</u> |
| | 7087215 B2 | | | <u>US 2002-222240 20020816</u> |
| | 20030035831 A1 | | | <u>US 2002-222699 20020816</u> |
| | 1140019 B1 Rela | ated | to | EP 2003-2417 19991216 |
| | 1338272 A1 | | | EP 2003-2417 19991216 |
| | 3818851 B2 | | | WO 1999-CA1231 19991216 |
| JΡ | 3818851 B2 | | | JP 2000-589162 19991216 |

FILING DETAILS:

| PA: | TENT NO | KIND | | PATENT NO | |
|-----|-------------|------|---------------|-----------------|--|
| AU | 760445 | В | Previous Publ | AU 2000018518 A | |
| DE | 69909127 | E | Based on | EP 1140019 A | |
| ΕP | 1338272 | A1 | Div ex | EP 1140019 A | |
| ES | 2203227 | T3 | Based on | EP 1140019 A | |
| US | 20030035831 | A1 | CIP of | US 6312665 B | |
| US | 20030157029 | A1 | CIP of | US 6312665 B | |
| US | 7087215 | B2 | CIP of | US 6312665 B | |
| US | 20030035831 | A1 | CIP of | US 6375975 B | |
| US | 20030157029 | A1 | CIP of | US 6375975 B | |
| US | 7087215 | B2 | CIP of | US 6375975 B | |
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| US | 20030157029 | A1 | CIP of | US 6436367 B | |
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| US | 20030157029 | A1 | CIP of | US 6451286 B | |
| US | 7087215 | B2 | CIP of | US 6451286 B | |

WO 2000037051

Based on

AU 2000018518

A

```
EP 1140019 A1
                         Based on
                                          WO 2000037051
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                         Based on
                                         WO 2000037051
                                                          Α
     JP 2002532536 W
                         Based on
                                         WO 2000037051
                         Based on
                                         WO 2000037051
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     EP 1140019
     DE 69909127
                                         WO 2000037051
                    E
                                                         Α
     MX 2001006380 A1 Based on
                                         WO 2000037051
                         Based on WO 2000037051
     MX 231873 B
                    B2 Previous Publ JP 2002532536
     JP 3818851
     JP 3818851
                   B2 Based on
                                         WO 2000037051
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                                          19990831
                                            19981221
                       US 1998-113239P
                                            19990217
                       US 1999-251464
                       US 2000-519285
                                            20000306
                       US 2000-574504
                                            20000519
                       US 2002-222240
                                            20020816
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                     A61K038-00; A61K009-107; A61K009-12
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                     A61K0031-56 [I,A]; A61K0031-56 [I,C]; A61K0031-7105 [I,A]
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                     ; A61K0031-7105 [I,C]; A61K0031-711 [I,A]; A61K0031-711
                     [I,C]; A61K0031-726 [I,C]; A61K0031-727 [I,A];
                     A61K0038-00 [I,A]; A61K0038-00 [I,C]; A61K0038-21 [I,A];
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                     A61K0039-395 [I,A]; A61K0039-395 [I,C];
                     A61K0045-00 [I,A]; A61K0045-00 [I,C]; A61K0047-06 [I,A];
                     A61K0047-06 [I,C]; A61K0047-08 [I,A]; A61K0047-08 [I,C];
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                     A61K0047-16 [I,A]; A61K0047-16 [I,C]; A61K0047-20 [I,A];
                     A61K0047-20 [I,C]; A61K0047-24 [I,A]; A61K0047-24 [I,C];
                     A61K0047-34 [I,A]; A61K0047-34 [I,C]; A61K0047-36 [I,A];
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                     [I,C]; A61K0031-727 [I,A]; A61K0038-00 [I,A]; A61K0038-00
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                      [I,A]; A61K0038-28 [I,A]; A61K0038-28 [I,C]; A61K0038-28
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                     A61K0047-12 [I,C]; A61K0047-14 [I,A]; A61K0047-14 [I,C];
                     A61K0047-16 [I,A]; A61K0047-16 [I,C]; A61K0047-20 [I,A];
                     A61K0047-20 [N,A]; A61K0047-20 [I,C]; A61K0047-20 [N,C];
                     A61K0047-24 [I,A]; A61K0047-24 [I,C]; A61K0047-34 [I,A];
                     A61K0047-34 [I,C]; A61K0047-36 [I,A]; A61K0047-36 [I,C];
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A61K0048-00 [I,C]; A61K0009-00 [I,A]; A61K0009-00 [I,C];
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                      ; A61P0031-00 [I,C]; A61P0031-12 [I,A]; A61P0031-16 [I,A]
                      ; A61P0031-18 [I,A]; A61P0007-00 [I,C]; A61P0007-02 [I,A]
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ICO:
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USCLASS NCLM:
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                      424/725.000; 424/758.000; 424/764.000; 514/002.000;
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                      514970000; 514974000; 514975000
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BASIC ABSTRACT:

WO 2000037051 A1 UPAB: 20060116

NOVELTY - New aerosol formulations for delivery of proteinic pharmaceuticals, contain the agent, water, an alkali metal alkyl sulfate, at least 3 micelles forming compounds, a phenolic compound and a propellant.

DETAILED DESCRIPTION - A mixed micellar aerosol pharmaceutical formulation and a propellant, comprises:

- (a) a proteinic pharmaceutical agent in micellar form;
- (b) water;
- (c) an alkali metal 8-22C alkyl sulfate in a concentration of 1-20 %, by weight;
- (d) at least 3 micelle forming compounds selected from lecithin, hyaluronic acid and salts, glycolic acid, lactic acid, chamomile extract, cucumber extract, oleic acid, linoleic acid, linolenic acid, monoolein, monooleates, monolaurates, borage oil, evening primrose oil, menthol, trihydroxy oxo cholanyl glycine and salts, glycerin, polyglycerin, lysine, polylysine, triolein, polyoxyethylene ethers and analogs, polydocanol alkyl ethers and analogs, chenodeoxycholate, deoxycholate and mixtures, each micelle forming compound is present in a concentration of 1-20 %, by weight, and the total concentration of micelle forming compound are at most 50 %, by weight;
- (e) a phenolic compound selected from phenol and methyl phenol in a concentration of 1-10 %, by weight; and
- (f) a propellant selected from 1-2C dialkyl ether, butanes, fluorocarbon propellant, H-containing fluorocarbon propellant, chlorofluorocarbon propellant, H-containing chlorofluorocarbon propellant, and mixtures.

An INDEPENDENT CLAIM is are also included for a process for making a pharmaceutical composition suitable for delivery through transdermal membranes comprising:

(a) mixing a proteinic pharmaceutical agent composition in an aqueous medium with an alkali metal 8-22C alkyl sulfate and at least one micelle forming compound selected from lecithin, hyaluronic acid and salts, glycolic acid, lactic acid, chamomile extract, cucumber extract, oleic acid, linoleic acid, linolenic acid, monoolein, monooleates, monolaurates, borage oil, evening primrose oil, menthol, trihydroxy oxo cholanyl glycine and salts, glycerin, polyglycerin, lysine, polylysine, triolein, polyoxyethylene ethers and analogs, polydocanol alkyl ethers and analogs, chenodeoxycholate, deoxycholate and mixtures, to form a micellar proteinic pharmaceutical agent composition, and a phenolic compound selected from phenol, m-cresol and mixtures; and

(b) placing the formulation into an aerosol dispenser and charging the dispenser with a propellant, where the composition has at least 3 micelle forming compounds and each micelle forming compound is present in a concentration of 1-20 %, by weight, and the total concentration of alkali metal alkyl sulfate and micelle forming compounds is at most 50 %, by weight.

ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine.

USE - The compositions can be used for the delivery of large-molecule pharmaceutical, e.g. <u>peptidic</u> drugs, vaccines and hormones by buccal or pulmonary administration (claimed).

ADVANTAGE - The compositions can enhance the penetration of drugs through pores and facilitate absorption to reach therapeutic levels in the plasma. MANUAL CODE: CPI: A12-V01; B04-B01C1; B04-B03C; B04-E01; B04-J01; B04-J03A; B05-B01P; B12-M01A; D05-H07

TECH

ORGANIC CHEMISTRY - Preferred Compounds: The alkali metal 8-22C alkyl sulfate is sodium lauryl sulfate. The lecithin may be e.g. saturated or unsaturated phosphatidylcholine, phosphatidyl serine, sphingomyelin, phosphatidylethanolamine, cephalin or lysolecithin. The propellant may be e.g. tetrafluoroethane, tetrafluoropropane, dimethylfluoropropane, heptafluoropropane, dimethyl ether, n-butane or isobutane. The micelle forming compound is hyaluronic acid, polidocanol alkyl ethers, trihydroxy oxo cholanyl glycine, polyoxyethylene ethers, or chenodeoxycholate. PHARMACEUTICALS - Preferred Agent: The pharmaceutical agent may be e.g. insulin, heparin, low molecular weight heparin, hirulog, hirugen, huridine, interferons, interleukins, cytokines, mono and polyclonal antibodies, immunoglobins, chemotherapeutic agents, vaccines, glycoproteins, bacterial toxoids, hormones, calcitonins, insulin like growth factors (IGF), glucagons like peptides (GLP-1), large molecule antibiotics, protein based thrombolytic compounds, platelet inhibitors, DNA, RNA, gene therapeutics, antisense oligonucleotides, opioids, narcotics, hypnotics, steroids or pain killers. The agents have a molecular weight of 1000-2000000.

ABEX ADMINISTRATION - The proteinic pharmaceutical agent is administered to the buccal cavity, without inhalation using a metered dose spray dispenser (claimed). The agents may also be administered nasally or pulmonarily. EXAMPLE - 10 ml of concentrated insulin containing 10000 units/ml was placed in a glass beaker. To this solution was added 7 mg sodium lauryl sulfate, 7 mg polyoxyethylene ether (10 lauryl), 7 mg trihydroxy oxo-cholanyl glycine and 7 mg lecithin. The components were stirred until they were completely dissolved, 7 mg phenol and 7 mg m-cresol were added to the solution and mixed thoroughly. 1 ml portions of the solution were pipetted into 10 ml capacity glass vials, The vial which had metered dose valves, were then charged with HFA 134a (RTM: 1,1,1,2-tetrafluoroethane) propellant with gas filling apparatus. The amount of propellant was adjusted to 9 ml/vial to deliver 10 units of insulin/actuation of the valve (100 micro-1 shot/actuation). The formulation, in the glass vial, including the propellant, was in a single phase, i.e. homogeneous. 10 diabetic patients fasted overnight and did not have a breakfast prior to dosing. On the first day, each patient had 7 units regular fast acting insulin, administered by injection. On the second day, each patient was given 70 units insulin (7 puffs of 10 units each) into the mouth, without inhalation. Blood samples were collected and plasma glucose level were measured at intervals for 3 hours. Insulin levels were also monitored at intervals by the RIA (undefined) method for 3 hours. The results showed that the injection method and spray method were comparable.

AN.S DCR-89804

CN.P CALCITONIN

SDCN R01874

SDRN 1874

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 54 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN

CROSS REFERENCE: 2000-205436; 2003-635054

DOC. NO. CPI: C2000-074518 [21]

TITLE: Pulmonary administration of active agents e.g. hormones

and antibacterials, to animals by administering composition comprising active agent and carrier of

acylated or sulfonated amino acid

DERWENT CLASS: A96; B07; C07; D16

INVENTOR: CAROZZA M; FLANDERS E; GSCHNEIDNER D; LEIPOLD M;

LEONE-BAY A; MILSTEIN S J; O'TOOLE D; OTOOLE D; SARUBBI D

J; SMART J E

PATENT ASSIGNEE: (EMIS-N) EMISPHERE TECHNOLOGIES INC

COUNTRY COUNT: 85

PATENT INFORMATION:

| PAT | TENT NO | KINI | D DATE | WEEK | LA | PG | MAIN IPC |
|-----|------------|--------|----------|-----------|----|--------|----------|
| WO | 2000006184 | A1 | 20000210 | (200021)* | EN | 47[13] | |
| ΑU | 9953210 | А | 20000221 | (200029) | EN | | |
| EP | 1100522 | A1 | 20010523 | (200130) | EN | | |
| CZ | 2001000331 | А3 | 20010815 | (200157) | CS | | |
| CN | 1311686 | А | 20010905 | (200201) | ZH | | |
| BR | 9912694 | А | 20020102 | (200206) | PΤ | | |
| HU | 2001003318 | A2 | 20020128 | (200222) | HU | | |
| AU | 745290 | В | 20020321 | (200233) | EN | | |
| US | 6440929 | В1 | 20020827 | (200259) | EN | | |
| JP | 2002521455 | W | 20020716 | (200261) | JA | 57 | |
| NZ | 509238 | A | 20030725 | (200357) | EN | | |
| MX | 2001000925 | A1 | 20021001 | (200370) | ES | | |
| ES | 2242412 | Т3 | 20051101 | (200577) | ES | | |
| IL | 140710 | A | 20061231 | (200720) | EN | | |
| | | | | | | | |

APPLICATION DETAILS:

| PATENT NO KIND | APPLICATION DATE |
|---------------------------|--------------------------|
| WO 2000006184 A1 | WO 1999-US16957 19990727 |
| US 6440929 B1 Provisional | US 1998-94267P 19980727 |
| US 6440929 B1 Provisional | US 1998-104466P 19981016 |
| AU 9953210 A | AU 1999-53210 19990727 |
| AU 745290 B | AU 1999-53210 19990727 |
| BR 9912694 A | BR 1999-12694 19990727 |
| CN 1311686 A | CN 1999-809157 19990727 |
| EP 1100522 A1 | EP 1999-938806 19990727 |
| ES 2242412 T3 | EP 1999-938842 19990727 |
| NZ 509238 A | NZ 1999-509238 19990727 |
| EP 1100522 A1 | WO 1999-US16957 19990727 |
| CZ 2001000331 A3 | WO 1999-US16957 19990727 |
| BR 9912694 A | WO 1999-US16957 19990727 |
| HU 2001003318 A2 | WO 1999-US16957 19990727 |
| US 6440929 B1 | WO 1999-US16957 19990727 |
| JP 2002521455 W | WO 1999-US16957 19990727 |
| NZ 509238 A | wo 1999-us16957 19990727 |
| MX 2001000925 A1 | WO 1999-US16957 19990727 |
| JP 2002521455 W | JP 2000-562038 19990727 |
| | |

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CZ 2001000331 A3
                                                     CZ 2001-331 19990727
       HU 2001003318 A2
                                                    HU 2001-3318 19990727
       MX 2001000925 A1
                                                    MX 2001-925 20010125
                                                    US 2001-744777 20010426
       US 6440929 B1
                                                     IL 1999-140710 19990727
       IL 140710 A
FILING DETAILS:
       PATENT NO KIND
                                                    PATENT NO
      AU 745290 B Previous Publ AU 9953210 A
ES 2242412 T3 Based on EP 1100771 A
AU 9953210 A Based on WO 2000006184 A
EP 1100522 A1 Based on WO 2000006184 A
CZ 2001000331 A3 Based on WO 2000006184 A
BR 9912694 A Based on WO 2000006184 A
HU 2001003318 A2 Based on WO 2000006184 A
AU 745290 B Based on WO 2000006184 A
US 6440929 B1 Based on WO 2000006184 A
US 6440929 B1 Based on WO 2000006184 A
JP 2002521455 W Based on WO 2000006184 A
NZ 509238 A Based on WO 2000006184 A
MX 2001000925 A1 Based on WO 2000006184 A
IL 140710 A Based on WO 2000006184 A
PRIORITY APPLN. INFO: US 1998-104466P
                                                  19981016
                             US 1998-94267P 19980727
                             US 2001-744777 20010426
INT. PATENT CLASSIF.:
            MAIN: A61K031-195; A61K009-72
       SECONDARY:
                         A61K031-725; A61K031-70; A61K031-726; A61K031-727;
                          A61K038-00; A61K038-04; A61K038-11; A61K038-21;
                          A61K038-22; A61K038-23; A61K038-24; A61K038-27;
                           A61K038-28; <u>A61K039-395</u>; A61K045-00;
                          A61K047-16; A61K047-20; A61K047-42; A61P003-10
                        A61K0031-185 [I,C]; A61K0031-195 [I,A]; A61K0031-715
   IPC ORIGINAL:
                          [I,A]; A61K0031-715 [I,C]; A61K0038-00 [I,A]; A61K0038-00
                           [I,C]
 IPC RECLASSIF.:
                          A61K0031-16 [I,A]; A61K0031-16 [I,C]; A61K0031-70 [I,A];
                          A61K0031-70 [I,C]; A61K0031-726 [I,A]; A61K0031-726 [I,C]
                           ; A61K0031-727 [I,A]; A61K0038-00 [I,A]; A61K0038-00
                           [I,C]; A61K0038-04 [I,A]; A61K0038-04 [I,C]; A61K0038-10
                           [I,C]; A61K0038-11 [I,A]; A61K0038-12 [N,A]; A61K0038-12
                           [N,C]; A61K0038-17 [I,A]; A61K0038-17 [I,C]; A61K0038-18
                           [I,A]; A61K0038-18 [I,C]; A61K0038-21 [I,A]; A61K0038-21
                           [I,C]; A61K0038-22 [I,A]; A61K0038-22 [I,C]; A61K0038-23
                           [I,A]; A61K0038-23 [I,C]; A61K0038-24 [I,A]; A61K0038-24
                           [I,C]; A61K0038-27 [I,A]; A61K0038-27 [I,C]; A61K0038-28
                           [I,A]; A61K0038-28 [I,C]; A61K0038-29 [I,A]; A61K0038-29
                           [I,C]; A61K0038-30 [I,A]; A61K0038-30 [I,C]; A61K0038-43
                           [I,A]; A61K0038-43 [I,C]; A61K0039-395 [I,A];
                           A61K0039-395 [I,C]; A61K0045-00 [I,A];
                           A61K0045-00 [I,C]; A61K0045-08 [I,A]; A61K0047-16 [I,A];
                           A61K0047-16 [I,C]; A61K0047-18 [I,A]; A61K0047-20 [I,A];
                           A61K0047-20 [I,C]; A61K0047-42 [I,A]; A61K0047-42 [I,C];
                           A61K0009-00 [N,A]; A61K0009-00 [N,C]; A61K0009-08 [I,A];
                           A61K0009-08 [I,C]; A61K0009-14 [I,A]; A61K0009-14 [I,C];
                           A61K0009-20 [I,A]; A61K0009-20 [I,C]; A61K0009-48 [I,A];
                          A61K0009-48 [I,C]; A61K0009-72 [I,A]; A61K0009-72 [I,C];
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A61P0003-00 [I,C]; A61P0003-10 [I,A]; A61P0005-00 [I,A]; A61P0005-00 [I,C]; C07C0235-00 [I,C]; C07C0235-64 [I,A]

ECLA: A61K0009-00M20B; A61K0031-16; A61K0031-16+A;

A61K0031-727; A61K0038-17A2; A61K0038-18B; A61K0038-27; A61K0038-28; A61K0038-29; A61K0038-30; A61K0047-18B;

C07C0235-64

ICO: K61K0009:00Z6; K61K0038:12

BASIC ABSTRACT:

WO 2000006184 A1 UPAB: 20060201

NOVELTY - Methods for administering biologically active agents to animals by administering by the pulmonary route a composition comprising (a) active agent and (b) carrier comprising an acylated amino acid, sulfonated amino acid, polyamino acid including an acylated amino acid and/or polyamino acid including a sulfonated amino acid.

USE - Method is used for pulmonary delivery of active agents including biologically active agent and/or chemically active agents, such as paptides, mucopolysaccharides, carbohydrates or lipids, particularly growth hormones, human growth hormones, recombinant human growth hormones, bovine growth hormones, porcine growth hormones, growth hormone-releasing hormones, IFNs, alpha-IFN, beta-IFN, gamma-IFN, IL-1, IL-2, insulin, IGF, IGF-1, heparin, unfractionated heparin, heparinoids, dermatans, chondroitins, low molecular weight heparin, very low molecular weight heparin, ultra low molecular weight heparin, calcitonin, salmon calcitonin, eel calcitonin, human calcitonin, erythropoeitin, atrial naturetic factor, antigens, monoclonal antibodies, somatostatin, protease inhibitors, adrenocorticotropin, gonadotropin-releasing hormone, oxytocin, leutinizing hormone-releasing hormone, follicle-stimulating hormone, glucocerebrosidase, thrombopoeitin, filgrastim, prostaglandins, cyclosporin, vasopressin, sodium cromoglycate, disodium cromoglycate, vancomycin (preferred), desferrioxamine, parathyroid hormone or its fragments, antimicrobials, antifungals and/or their analogs, fragments, mimetics and polyethylene glycol (PEG)-modified derivatives (claimed) to a target.

ADVANTAGE - Methods provide improved pulmonary delivery and greater bioavailability of the active agent than administration of the active agent alone, thus lesser amounts of active agent may be administered to obtain a desired result. Methods are particularly suited to delivery of active agents that are subject to environmental degradation. Following administration, the active agent is rapidly taken up into the circulation. Methods provide overall increase in the amount of active agent delivered over time, overall increase in the biological response over time and/or increased delivery or response at a particular time such as quicker delivery of active agent or quicker response. MANUAL CODE:

CPI: A12-V01; B02-C01; B02-V01; B04-B01B; B04-B04C;

B04-B04L; B04-B04M; B04-C02; B04-C03C; B04-D01; B04-G21; B04-H02; B04-H03; B04-H04A; B04-H05; B04-H06; B04-H07; B04-H19; B04-J01; B04-J03A; B04-J04; B04-J05; B04-J07; B04-J09; B04-J10; B04-L05B; B04-N04; B05-B01E; B05-B01F; B05-B01G; B06-A01; B06-H; B07-H; B10-A09B; B10-A10; B10-A18; B10-A22; B14-A01; B14-A04; B14-D07C; C02-C01; C02-V01; C04-B01B; C04-B04C; C04-B04L; C04-B04M; C04-C02; C04-C03C; C04-D01; C04-G21; C04-H02; C04-H03; C04-H04A; C04-H05; C04-H06; C04-H07; C04-H19; C04-J01; C04-J03A; C04-J04; C04-J05; C04-J07; C04-J09; C04-J10; C04-L05B; C04-N04; C05-B01E; C05-B01F; C05-B01G; C06-A01; C06-H; C07-H; C10-A09B; C10-A10; C10-A18; C10-A22; C14-A01; C14-A04; C14-D07C; D05-H11A

TECH

PHARMACEUTICALS - Preferred active agent - The active agent is a biologically active agent and/or chemically active agent, preferably at least one pertide, mucopolysaccharide, carbohydrate or lipid, especially growth hormones, human growth hormones, recombinant human growth hormones, bovine growth hormones, porcine growth hormones, growth hormone-releasing hormones, interferons (IFNs) (preferred), alpha-IFN, beta-IFN, gamma-IFN, interleukin (IL)-1, IL-2 (preferred), insulin

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(preferred), insulin-like growth factor (IGF) (preferred), IGF-1
     (preferred), heparin (preferred), unfractionated heparin, heparinoids,
     dermatans, chondroitins, low molecular weight heparin (preferred), very
     low molecular weight heparin, ultra-low molecular weight heparin,
     calcitonin (preferred), salmon calcitonin, eel calcitonin, human
     calcitonin, erythropoeitin, atrial natriuretic factor, antigens,
     monoclonal antibodies, somatostatin, protease inhibitors,
     adrenocorticotropin, gonadotropin-releasing hormone, oxytocin (preferred),
     leutinizing hormone-releasing hormone, follicle-stimulating hormone,
     glucocerebrosidase, thrombopoeitin, filgrastim, prostaglandins,
     cyclosporin, vasopressin (preferred), sodium cromoglycate, disodium
     cromoglycate, vancomycin (preferred), desferrioxamine (preferred),
     parathyroid hormone (preferred) or its fragments, antimicrobials,
     antifungals and/or their analogs, fragments, mimetics and
     polyethylene glycol (PEG)-modified
     derivatives.
     ORGANIC CHEMISTRY - Preferred carrier - The carrier comprises a compound
     of formula (I) or (II).
     R1 = 1-7C alkyl, 3-10C cycloalkyl, cycloalkenyl, aryl, thienyl, phenyl,
     naphthyl, pyrrolo or pyridyl (all optionally substituted by one or more of
     1-7C alkyl, 2-7C alkenyl, 2-7C alkynyl, 6-10C cycloalkyl, phenyl, phenoxy,
     F, Cl, Br, OH, SO2, SO3H, NO2, SH, PO3H, oxazolo, isoxazolo, OR6, COOR7,
    N(R5) 2 and/or N+(R5)3X-);
     Y = C(0) or SO2;
     X = halo, hydroxide, sulfate, tetrafluoroborate or phosphate;
    R2 = H, 1-4C alkyl, 2-4C alkenyl or (CH2)nCOOH;
     n = 1-10:
     R3 = 1-24C alkyl, 2-24C alkenyl, 2-24C alkynyl, 3-10C cycloalkyl, 3-10C
     cycloalkenyl, phenyl, naphthyl, 1-10C alkylphenyl, 2-10C alkenylphenyl,
     1-10C alkylnaphthyl, 2-10C alkenylnaphthyl, phenyl-(1-10C) alkyl,
    phenyl-(2-10C) alkenyl, naphthyl-(1-10C) alkyl, naphthyl-(2-10C) alkenyl
     (all optionally substituted by 1-4C alkyl, 2-4C alkenyl, 1-4C alkoxy, OH,
     SH, halo, NH2, CO2R4, 3-10C cycloalkyl, 3-10C cycloalkenyl, heterocycle
     containing 3-10 ring atoms including heteroatoms chosen from one or more
     of O, S and/or N, aryl, (1-10C alkyl)-aryl and/or aryl-(1-10C) alkyl)
     R4 = H, 1-4C alkyl or 2-4C alkenyl;
     R5 = H \text{ or } 1-10C \text{ alkyl};
     R6 = 1-10C alkyl, alkenyl, alkynyl, aryl or cycloalkyl;
     R7 = H, 1-10C alkyl, alkenyl, alkynyl, aryl or cycloalkyl;
     Ar = optionally substituted phenyl or naphthyl, preferably optionally
     substituted 2-OH-phenyl;
     R8 = N(R10)-R9-C(0);
     R9 = as R3 main groups except for alkyne and cycloalkyl (where R9 is
     optionally interrupted by O, N and/or S; and is optionally substituted by
     1-4C alkyl, 2-4C alkenyl, 1-4C alkoxy, OH, SH, CO2R11, cycloalkyl,
     cycloalkenyl, heterocyclic alkyl, alkaryl, heteroaryl, and/or
     heteroalkarvl);
     R10, R11 = H, 1-4C alkyl or 2-4C alkenyl.
ABEX ADMINISTRATION - Administration is pulmonary to animals including birds
     such as chickens and mammals such as cows, pigs, dogs, cats, primates and
     SPECIFIC COMPOUNDS - 3 compounds are given as carrier compounds e.g.
     EXAMPLE - Sprague-Dawley rats were given 100 microl solution of (1) 0.01
     mg/kg insulin; (2) 0.05 mg/kg insulin; (3) 0.01 mg/kg insulin plus 16
     mg/kg carrier; (4) 0.05 mg/kg insulin plus 5 mg/kg carrier or (5) 0.05
     mg/kg insulin plus 16 mg/kg carrier in the airways instilled by
     endotracheal tube. Blood samples were withdrawn at 0, 10, 30, 60, 90, 120
     and 180 minutes after administration. - The percent minimum plasma glucose
     concentration was (%): (1) 70.02; (2) 46.4; (3) 35.7; (4) 38.6; and (5)
```

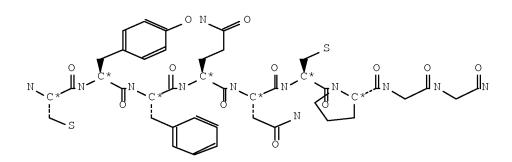
14.9. – The time to attain each percent minimum plasma glucose concentration was (%): (1) 180; (2) 90; (3) 120; (4) 90; and (5) 60. – The percent reduction in plasma glucose from 0 to 3 hours was (%): (1) 10.5 +/- 1.5; (2) 36 +/- 9; (3) 47 +/- 10; (4) 46 +/- 8; and (5) 65.7 +/- 5. – The area above the curve effect from 0 to t hours was (mcU/min/ml): (1) 1892 +/- 989; (2) 6395 +/- 1609; (3) 8497 +/- 1716; (4) 8218 +/- 1430; and (5) 11834 +/- 872. – The results suggest the potential of the carrier to increase significantly the bioavailability of insulin and its effect on glucose levels.

AN.S DCR-110025 CN.P VANCOMYCIN SDCN R04258

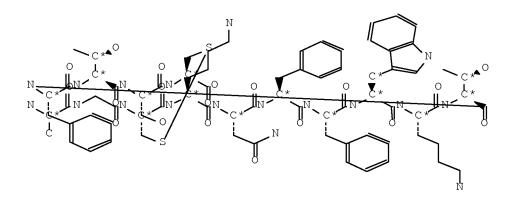
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT * AN.S DCR-110049

CN.P VASOPRESSIN

CN.S 1-[19-Amino-13-benzyl-10-(2-carbamoyl-ethyl)-7-carbamoylmethyl-16-(4-hydroxy-ben zyl)-6,9,12,15,18-pentaoxo-1,2-dithia-5,8,11,14,17-pentaaza-cycloeicosane-4-carb onyl]-pyrrolidine-2-carboxylic acid [5-amino-1-(carbamoylmethyl-carbamoyl)-penty 1]-amide SDCN R06995



AN.S DCR-107421 CN.P SOMATOSTATIN SDCN R02073 SDRN 2073



AN.S DCR-184587 CN.P ANTIBODIES SUBSTANCE DESCRIPTOR SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

=> d ibib ed ab ind 55-84YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 55 OF 84 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 85176595 MEDLINE <u>Full-text</u>

DOCUMENT NUMBER: PubMed ID: 3986759

TITLE: Immunological and biological stability of immunotoxins in

vivo as studied by the clearance of disulfide-linked

pokeweed antiviral protein-antibody conjugates from blood.

AUTHOR: Ramakrishnan S; Houston L L CONTRACT NUMBER: CA 29889 (United States NCI)

SOURCE: Cancer research, (1985 May) Vol. 45, No. 5, pp.

2031-6.

Journal code: 2984705R. ISSN: 0008-5472.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198506

ENTRY DATE: Entered STN: 20 Mar 1990

Last Updated on STN: 29 Jan 1999

Entered Medline: 6 Jun 1985

ED Entered STN: 20 Mar 1990

Last Updated on STN: 29 Jan 1999

Entered Medline: 6 Jun 1985

AB Monoclonal antibodies against human T-cell antigen 3A1, human transferrin receptor, and mouse Thy 1.1 antigen were linked to pokeweed antiviral protein (PAP) by a disulfide bond. Because the ability of the immunotoxin to home on target cells in vivo and the eventual internalization of the hemitoxin polypeptide depends in part on the stability of the conjugate in circulation,

the clearance of antibody-PAP conjugates from blood was investigated. Blood samples collected from rabbits at different times after the injection of immunotoxin were analyzed for: (a) total mouse IgG; and (b) intact antibody-PAP conjugate in enzyme-linked immunosorbent assay. Further, antibody-PAP conjugate was separated from PAP by differential precipitation using polyethyleneglycol, and the PAP content of the fractions were analyzed by radioimmunoassay. Free PAP is removed very rapidly from blood, and 95% is cleared within 2 h. Our results showed that the immunotoxin did not dissociate in circulation immediately, and about 90% of the initial concentration of the conjugate was still present for more than 4 h. Analysis by enzyme-linked immunosorbent assay showed a 4- to 8-h lag period in which immunotoxin concentrations were relatively unchanged. This was followed by a steady decline, and the half-life of the conjugate in circulation then ranged between 17 and 24 h. Not only did the immunotoxins remain intact immunologically, but they also retained their biological activity as measured by the ability of blood-borne immunotoxins to efficiently block protein synthesis of target cells in vitro. These data show that the disulfide linkage of toxin to antibody is reasonably stable and that the immunotoxin retains the biological properties of both the antibody and the hemitoxin polypeptide in circulation.

CT Animals

*Antibodies, Monoclonal: AD, administration & dosage

Antibodies, Monoclonal: AN, analysis

Cytotoxins: AD, administration & dosage

*Cytotoxins: ME, metabolism

Drug Stability

Humans

Isoantibodies: AN, analysis
Metabolic Clearance Rate
*N-Glycosyl Hydrolases

Plant Proteins: AD, administration & dosage

*Plant Proteins: ME, metabolism

Protein Biosynthesis

Rabbits

AUTHOR:

Ribosome Inactivating Proteins, Type 1

CN 0 (Antibodies, Monoclonal); 0 (Cytotoxins); 0 (Isoantibodies); 0 (Plant Proteins); 0 (Ribosome Inactivating Proteins, Type 1); 0 (anti-Thy antibody); EC 3.2.2.- (N-Glycosyl Hydrolases); EC 3.2.2.22 (pokeweed antiviral protein)

L147 ANSWER 56 OF 84 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER: 84007104 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 6618711

TITLE: Antibody formation against the cytotoxic proteins abrin and

ricin in humans and mice.
Godal A; Fodstad O; Pihl A

SOURCE: International journal of cancer. Journal international du

cancer, (1983 Oct 15) Vol. 32, No. 4, pp. 515-21.

Journal code: 0042124. ISSN: 0020-7136.

PUB. COUNTRY: Denmark

DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198311

ENTRY DATE: Entered STN: 19 Mar 1990

Last Updated on STN: 19 Mar 1990 Entered Medline: 23 Nov 1983

ED Entered STN: 19 Mar 1990

Last Updated on STN: 19 Mar 1990

10/565,331 Entered Medline: 23 Nov 1983 AΒ Antibody formation may limit the therapeutic use of cancerostatic proteins. To study the significance of antibody formation against abrin and ricin, highly sensitive ELISA procedures for determination of anti-abrin and antiricin were developed. In mice treated weekly with therapeutic doses of ricin, antibodies appeared after 2-3 weeks and then rose rapidly, whereas after abrin treatment the antibody formation was slower. Ricin A-chain was found to be more immunogenic than either intact ricin or human serum albumin (HSA). Cyclophosphamide inhibited the antibody response to both abrin and ricin and a combination of cyclophosphamide and prednisolone totally inhibited both antiabrin and anti-ricin formation during the 6-week observation period. In mice treated weekly with HSA, abrin treatment strongly reduced the anti-HSA formation, showing that abrin has an immunosuppressive effect which appeared to be stronger than that of cyclophosphamide. The existence of circulating antigen-antibody complexes could be demonstrated in the sera of toxin-treated mice by precipitation with polyethyleneglycol, whenever antibodies were detectable with ELISA. The life-span of animals given lethal ricin doses was appreciably enhanced in animals having antibody levels in excess of 10-20ng/ml. In cancer patients treated i.v. every second week with therapeutic toxin doses, the 10-20 ng/ml levels of anti-ricin and anti-abrin were reached 6-8 weeks and 7-10 weeks after the first injection of ricin and abrin, respectively. The data indicate that the effective therapeutic use of abrin and ricin as single agents may be limited to these time frames, but that the period of effective use may be substantially prolonged if the toxins are given together with conventional cytostatic agents having immuno-suppressive activity. *Abrin: IM, immunology CT Abrin: TU, therapeutic use Animals Antibodies: AN, analysis *Antibody Formation Antibody Formation: DE, drug effects Antigen-Antibody Complex: IP, isolation & purification Cyclophosphamide: PD, pharmacology Enzyme-Linked Immunosorbent Assay Mice Neoplasms: TH, therapy *Plant Proteins: IM, immunology Prednisolone: PD, pharmacology *Ricin: IM, immunology Ricin: TU, therapeutic use Serum Albumin: IM, immunology Time Factors 1393-62-0 (Abrin); 50-18-0 (Cyclophosphamide); 50-24-8 (Prednisolone); 9009-86-3 (Ricin) 0 (Antibodies); 0 (Antigen-Antibody Complex); 0 (Plant Proteins); 0 (Serum CN Albumin) L147 ANSWER 57 OF 84 MEDLINE on STN ACCESSION NUMBER: 91348861 MEDLINE Full-text DOCUMENT NUMBER: PubMed ID: 1715320 TITLE: Antigenic cross-reactivity and functional inhibition by

Wren B W; Russell R R; Tabaqchali S CORPORATE SOURCE: Department of Medical Microbiology, St. Bartholomew's Hospital Medical College, West Smithfield, London, United Kingdom. SOURCE: Infection and immunity, (1991 Sep) Vol. 59, No.

antibodies to Clostridium difficile toxin A, Streptococcus mutans glucan-binding protein, and a synthetic peptide.

9, pp. 3151-5.

AUTHOR:

Journal code: 0246127. ISSN: 0019-9567.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199110

ENTRY DATE: Entered STN: 20 Oct 1991

Last Updated on STN: 3 Feb 1997

Entered Medline: 2 Oct 1991

ED Entered STN: 20 Oct 1991

Last Updated on STN: 3 Feb 1997

Entered Medline: 2 Oct 1991

A 10-amino-acid repeating sequence of the hemagglutinating portion of AΒ Clostridium difficile toxin A has been synthesized and used to produce antisera in rabbits. Antipeptide antibody inhibited toxin A-mediated hemagglutination and neutralized cytotoxic activity. Immunoblot analysis with the antipeptide antibody revealed cross-reactivity with native toxin, a recombinant protein containing the toxin A repeats, and a glucan-binding protein from Streptococcus mutans whose primary structure has repeating amino acid motifs similar to those of the synthetic peptide. A polyclonal antibody against the glucan-binding protein, which cross-reacted with purified towin A, also inhibited toxin A-mediated hemagglutination and neutralized cytotoxic activity. We recently identified toxin A and the glucan-binding protein as members of a novel family of clostridial and streptococcal binding proteins based on conserved repeating amino acid motifs at the C-terminal region of the molecules. This study provides immunological and functional evidence of the predicted relationship between toxin A and the glucan-binding protein and further implicates the repeating subunits as ligand-binding domains in this family of proteins.

CT Amino Acid Sequence

Animals

*Antibodies, Bacterial: IM, immunology *Bacterial Toxins: IM, immunology

*Carrier Proteins: IM, immunology

*Clostridium difficile: IM, immunology

Cross Reactions: IM, immunology

Cytotoxicity, Immunologic: IM, immunology

Electrophoresis, Polyacrylamide Gel

*Enterotoxins: IM, immunology

Epitopes: IM, immunology

*Glucans: IM, immunology

Hemagglutination: IM, immunology

Immunoblotting

Lectins

Molecular Sequence Data

Oligopeptides: CS, chemical synthesis

*Oligopeptides: IM, immunology

Rabbits

Recombinant Proteins: IM, immunology

*Streptococcus mutans: IM, immunology

Tumor Cells, Cultured

CN 0 (Antibodies, Bacterial); 0 (Bacterial Toxins); 0 (Carrier Proteins); 0
 (Enterotoxins); 0 (Epitopes); 0 (Glucans); 0 (Lectins); 0 (Oligopeptides);
 0 (Recombinant Proteins); 0 (glucan-binding proteins); 0 (tcdA protein,
 Clostridium difficile)

L147 ANSWER 58 OF 84 MEDLINE on STN

ACCESSION NUMBER: 90195188 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 2107646

10/565,331 TITLE: Preparation of a diphtheria toxin-pullulan conjugate that elicits good IgG antibody production with poor IqE synthesis. AUTHOR: Yamaya S; Yamamoto A; Komiya T; Mizuguchi J; Matuhasi T Department of Applied Immunology, National Institute of CORPORATE SOURCE: Health, Shinagawa-ku, Tokyo. SOURCE: Vaccine, (1990 Feb) Vol. 8, No. 1, pp. 65-9. Journal code: 8406899. ISSN: 0264-410X. ENGLAND: United Kingdom PUB. COUNTRY: DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199004 Entered STN: 1 Jun 1990 ENTRY DATE: Last Updated on STN: 3 Feb 1997 Entered Medline: 24 Apr 1990 Entered STN: 1 Jun 1990 ED Last Updated on STN: 3 Feb 1997 Entered Medline: 24 Apr 1990 AΒ Diphtheria toxin is detoxified through conjugation with pullulan. The toxinpullulan conjugate is easily purified by DEAE-Sephacel chromatography. conjugate forms a transparent 'clear line' with anti-toxin antibodies on agarose plate, which offers a good indicator of conjugate formation. The toxin-pullulan conjugate induces both IgG1 and IgG2b antibody production with diminished IqE response, while the alum-precipitated conventional toxoid causes mainly increases in IgE as well as IgG1 antibody formation. toxin HA titre (IgG antibody) induced by the toxin-pullulan conjugate parallels the neutralizing activity of the immune-sera. These results suggest that the conjugation of toxin to pullulan is a very powerful method by which to develop a vaccine that induces neutralizing antibody with diminished IgE antibody synthesis. CT Animals Antibodies, Bacterial: BI, biosynthesis Chromatography, Gel *Diphtheria Toxin: IM, immunology *Diphtheria Toxoid: IM, immunology Dose-Response Relationship, Immunologic Enzyme-Linked Immunosorbent Assay *Glucans Hemagglutination Tests Immunodiffusion *Immunoglobulin E: BI, biosynthesis *Immunoglobulin G: BI, biosynthesis Immunoglobulín M: BI, biosynthesis Kinetics Mice Mice, Inbred C57BL Neutralization Tests Rats Rats, Inbred Strains RN 37341-29-0 (Immunoglobulin E); 9057-02-7 (pullulan) 0 (Antibodies, Bacterial); 0 (Diphtheria Toxin); 0 (Diphtheria Toxoid); 0 CN (Glucans); 0 (Immunoglobulin G); 0 (Immunoglobulin M)

L147 ANSWER 59 OF 84 MEDLINE on STN

ACCESSION NUMBER: 87140068 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 3819728

TITLE: Ganglioside GM1 <u>antibodies</u> and B-cholera toxin bind specifically to embryonic

chick dorsal root ganglion neurons but do not modulate

neurite regeneration.

AUTHOR: Doherty P; Walsh F S

SOURCE: Journal of neurochemistry, (1987 Apr) Vol. 48,

No. 4, pp. 1237-44.

Journal code: 2985190R. ISSN: 0022-3042.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198704

ENTRY DATE: Entered STN: 3 Mar 1990

Last Updated on STN: 3 Mar 1990 Entered Medline: 22 Apr 1987

ED Entered STN: 3 Mar 1990

Last Updated on STN: 3 Mar 1990 Entered Medline: 22 Apr 1987

AΒ Polyclonal antibodies to ganglioside GM1 have been prepared and characterised by direct and competitive enzyme-linked immunoassay. An immunoglobulin fraction was prepared from a rabbit antisera showing high specificity and antibody titre for GM1 relative to the other major brain gangliosides. The anti-GM1 immunoglobulin fraction and B-cholera toxin specifically labelled neurons in primary cultures of embryonic chick dorsal root ganglia and there was a good correlation between the relative increase in binding of anti-GM1 immunoglobulin and B-cholera toxin following neuraminidase treatment of a variety of cell types. At antibody concentrations that show saturable binding to endogenous ganglioside in the neuronal membrane, the anti-GM1 immunoglobulin fraction did not interfere with the nerve growth factor (NGF)mediated fibre outgrowth and neuronal survival as indexed by measurement of neurofilament protein levels. Similarly, at levels in excess of those shown to stimulate thymocyte proliferation, B-cholera toxin was also without effect. These data are not consistent with GM1 in the neuronal membrane functioning as a receptor molecule for NGF and/or other differentiation factors present in the tissue culture media.

CT Animals

Antibodies: IM, immunology

Antibody Specificity *Axons: PH, physiology Binding, Competitive

Cell Division: DE, drug effects

Chick Embryo

*Cholera Toxin: ME, metabolism
Cholera Toxin: PD, pharmacology
G(M1) Ganglioside: IM, immunology
*G(M1) Ganglioside: PH, physiology
Ganglia, Spinal: EM, embryology
*Ganglia, Spinal: ME, metabolism

*Ganglia, Spinal: ME, metabolism Immunoglobulins: IM, immunology Immunoglobulins: ME, metabolism

Intermediate Filament Proteins: ME, metabolism

Nerve Growth Factors: PD, pharmacology

Nerve Regeneration

Neuraminidase: PD, pharmacology

*Neurons: ME, metabolism
Neurons: UL, ultrastructure

RN 37758-47-7 (G(M1) Ganglioside); 9012-63-9 (Cholera Toxin)

CN 0 (Antibodies); 0 (Immunoglobulins); 0 (Intermediate Filament Proteins); 0 (Nerve Growth Factors); EC 3.2.1.18 (Neuraminidase)

L147 ANSWER 60 OF 84 MEDLINE on STN

ACCESSION NUMBER: 86236437 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 2424145

TITLE: Staphylococcal alpha-toxin: a structure-function study

using a monoclonal antibody.

AUTHOR: Harshman S; Sugg N; Gametchu B; Harrison R W

CONTRACT NUMBER: 1 R01 AM 32877 (United States NIADDK)

5 R01 CA 19907 (United States NCI)

Toxicon: official journal of the International Society on SOURCE:

Toxinology, (1986) Vol. 24, No. 4, pp. 403-11.

Journal code: 1307333. ISSN: 0041-0101.

ENGLAND: United Kingdom PUB. COUNTRY:

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE:

(RESEARCH SUPPORT, NON-U.S. GOV'T)

(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198607

ENTRY DATE: Entered STN: 21 Mar 1990

> Last Updated on STN: 3 Feb 1997 Entered Medline: 2 Jul 1986

Entered STN: 21 Mar 1990 ED

Last Updated on STN: 3 Feb 1997

Entered Medline: 2 Jul 1986

A monoclonal antibody (A-Tox-653.1) selected for its reactivity in a dot AΒ immunoblot assay with denatured staphylococcal alpha-toxin has been isolated and its capacity to block the hemolytic and lethal activities of alpha-toxin measured. In addition, 'reactivity with monomer, hexamer, 125I-monoiodinated and CNBr peptides of alpha-toxin was studied. In all cases the reactions of the monoclonal antibody were compared to those obtained with anti-alpha-toxin rabbit hyperimmune serum. We find that while both the monoclonal antibody and the rabbit antiserum react with all forms of alpha-toxin, only the rabbit antiserum blocks hemolytic or lethal activity. Further, the rabbit antiserum reacts with CNBr fragments IV, V ad VII, whereas the monoclonal antibody reacts only with the carboxy terminal CNBr peptide VII. We conclude that, in solution, the carboxy terminal segment of alpha-toxin is relatively free and reaction with the monoclonal antibody neither impedes its binding to the specific receptor on the membrane nor interferes with formation of the hexamer complex.

CTAnimals

Antibodies, Monoclonal

*Bacterial Toxins: IM, immunology

Collodion

Cvanogen Bromide

Electrophoresis, Polyacrylamide Gel Enzyme-Linked Immunosorbent Assay

Epitopes: IM, immunology

*Hemolysin Proteins

Hemolysis

Immunodiffusion

Mice, Inbred BALB C

Peptide Fragments: IM, immunology

Rabbits

RN 506-68-3 (Cyanogen Bromide); 9004-70-0 (Collodion)

CN 0 (Antibodies, Monoclonal); 0 (Bacterial Toxins); 0 (Epitopes); 0 (Hemolysin Proteins); 0 (Peptide Fragments); 0 (staphylococcal alpha-toxin)

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ACCESSION NUMBER: 2003174276 EMBASE Full-text

TITLE: Fluorescence polarization (FP) assays for the determination

of grain mycotoxins (fumonisins, DON vomitoxin and

aflatoxins).

AUTHOR: Nasir, Mohammad S. (correspondence); Jolley, Michael E. CORPORATE SOURCE: Diachemix LLC, Unit H, 683 East Center Street, Grayslake,

IL 60030, United States. m-nasir@diachemix.com

SOURCE: Combinatorial Chemistry and High Throughput Screening, (May

2003) Vol. 6, No. 3, pp. 267-273.

Refs: 42

ISSN: 1386-2073 CODEN: CCHSFU

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 029 Clinical and Experimental Biochemistry

052 Toxicology

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 19 May 2003

Last Updated on STN: 19 May 2003

ED Entered STN: 19 May 2003

Last Updated on STN: 19 May 2003

AB Successful use of fluorescence polarization assays (FPAs) in human clinical, infectious disease, and drug discovery fields has prompted us to extend its use to the grain mycotoxin field. An antibody specific to a mycotoxin and a mycotoxin-fluorophore conjugate are developed. Free toxin (extracted from the grains with a suitable solvent) competes with the toxin-fluorophore conjugate for the antibody and a change in FP relative to the quantity of free toxin occurs. This change is compared to a standard curve obtained by using known quantities of toxin. The use of FP and toxin-fluorophore conjugates for the quantification of fumonisins, deoxynivalenol and aflatoxins is described. These assays are field portable, simple to perform, rapid and require no washing steps.

CT Medical Descriptors:

antibody specificity binding competition

conjugate
drug design
extraction

*fluorescence polarization

*grain
infection
nonhuman
priority journal
quantitative ana.

quantitative analysis quantitative assay

review

CT

solvent extraction

standard

*toxin analysis
Drug Descriptors:

*aflatoxin *fumonisin *mycotoxin

solvent

toxin antibody *vomitoxin

RN (aflatoxin) 1402-68-2; (vomitoxin) 51481-10-8

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ACCESSION NUMBER: 1999005453 EMBASE Full-text

TITLE: Antitumor effect of diphtheria toxin A-chain

gene-containing cationic liposomes conjugated

with monoclonal antibody directed to

tumor-associated antigen of bovine leukemia cells.

AUTHOR: Tana; Yasuda, Tatsuji

CORPORATE SOURCE: Department of Cell Chemistry, Institute of Cellular and

Molecular Biology, Okayama University Medical School,

Shikata-cho, Okayama 700-8558.

AUTHOR: Watarai, Shinobu (correspondence); Kodama, Hiroshi CORPORATE SOURCE: Laboratory of Veterinary Immunology, College of

Agriculture, Osaka Prefecture University, 1-1 Gakuen-cho,

Sakai, Osaka 599-8531.

AUTHOR: Onuma, Misao

CORPORATE SOURCE: Graduate School of Veterinary Medicine, Hokkaido

University, Sapporo 060-0818.

AUTHOR: Aida, Yoko

CORPORATE SOURCE: Tsukuba Life Science Center, Institute of Physical and

Chemical Research (RIKEN), 3-1-1 Koyadai, Tsukuba, Ibaraki

305-0074.

AUTHOR: Kakidani, Hitoshi

CORPORATE SOURCE: Tokyo Research Laboratory, TOSOH Corporation, 2743-1

Hayakawa, Ayase, Kanagawa 252-1123.

AUTHOR: Watarai, Shinobu (correspondence)

CORPORATE SOURCE: Department of Veterinary Science, College of Agriculture,

Osaka Prefecture University, 1-1 Gakuen-cho, Sakai, Osaka

599-8531, Japan.

SOURCE: Japanese Journal of Cancer Research, (1998) Vol. 89, No.

11, pp. 1202-1211.

Refs: 30

ISSN: 0910-5050 CODEN: JJCREP

COUNTRY: Japan

DOCUMENT TYPE: Journal; Article FILE SEGMENT: 016 Cancer

022 Human Genetics

025 Hematology

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 15 Jan 1999

Last Updated on STN: 15 Jan 1999

ED Entered STN: 15 Jan 1999

Last Updated on STN: 15 Jan 1999

AΒ Monoclonal antibody c143 against tumor-associated antigen (TAA) expressed on bovine leukemia cells was conjugated to cationic liposomes carrying a plasmid pLTR-DT which contained a gene for diphtheria toxin A-chain (DT-A) under the control of the long terminal repeat (LTR) of bovine leukemia virus (BLV) in the multicloning site of pUC-18. The specificity and antitumor effects of the conjugates were examined in vitro and in vivo using TAA-positive bovine B-cell lymphoma line as the target tumor. In vitro studies with the TAA-positive cell line indicated that luciferase gene-containing cationic liposomes associated with the c143 anti-TAA monoclonal antibody caused about 2-fold increase in luciferase activity compared with cationic liposomes having no antibody, and also that the c143- conjugated cationic liposomes containing pLTR-DT exerted selective growth-inhibitory effects on the TAA-positive B-cell line. Three injections of pLTR-DT-containing cationic liposomes coupled with c143 into tumor-bearing nude mice resulted in significant inhibition of the tumor growth. The antitumor potency of the c143-conjugated cationic liposomes containing pLTR-DT was far greater than that of normal mouse IgG-coupled cationic liposomes containing pLTR-DT as assessed in terms of tumor size.

These results suggest that cationic liposomes bearing c143 are an efficient transfection reagent for BLV-infected B-cell lymphoma cells, and that the delivery of the pLTR-DT gene into BLV-infected B-cells by the use of such liposomes may become a useful technique for gene therapy of bovine leukosis.

CT Medical Descriptors:

animal cell

antineoplastic activity

article

b cell lymphoma

bovine leukemia virus

conjugate
controlled study
DNA transfection
enzyme activity

gene

*gene targeting *gene therapy *leukemia cell

long terminal repeat

nonhuman nude mouse plasmid

priority journal
tumor volume

CT Drug Descriptors:

*cancer antibody *diphtheria toxin

*liposome

luciferase

monoclonal antibody

tumor antigen: EC, endogenous compound

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ACCESSION NUMBER: 1995212093 EMBASE

TITLE: Selective killing of T cells by immunotoxins directed at

distinct $V(\beta)$ epitopes of the T cell receptor.

Full-text

AUTHOR: Rigaut, K.D. (correspondence); Scharff, J.E.; Neville Jr.,

D.M.

CORPORATE SOURCE: National Institute of Mental Health, Laboratory of

Molecular Biology, 9000 Rockville Pike, Bethesda, MD 20892,

United States.

SOURCE: European Journal of Immunology, (1995) Vol. 25, No. 7, pp.

2077-2082.

ISSN: 0014-2980 CODEN: EJIMAF

COUNTRY: Germany

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 026 Immunology, Serology and Transplantation

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 3 Aug 1995

Last Updated on STN: 3 Aug 1995

ED Entered STN: 3 Aug 1995

Last Updated on STN: 3 Aug 1995

The potency and specificity of anti-T cell receptor (TcR)-directed immunotoxins were studied in two T cell leukemia lines, HPB-ALL and Jurkat, and in primary T cells. Immunoconjugates were synthesized using anti-CD3(ϵ) or distinct anti-V(β), antibodies cross-linked to CRM9, a binding site-mutant of diphtheria toxin. All TcR-expressing cells display the CD3 complex on the

plasma membrane. HPB-ALL cells express the V(β)8 gene product in the β subunit of the TcR, while Jurkat cells express V(β)8. V(β) expression in primary T cells isolated from buffy coats is heterogeneous. Primary T cell populations expressing specific V(β) epitopes in the TcR were generated by plating CD3(+) T cells on V(β)-specific antibody-coated flasks or by positive immunomagnetic selection. Immunotoxins directed against the invariant CD3 ϵ epitope target and kill all T cells. Immunoconjugates targeted at distinct anti-V(β) epitopes are specific for cells that express the corresponding gene product in the TcR. The results demonstrate the ability of anti-TcR-based immunotoxins selectively to kill T cells with defined V(β) epitopes. These reagents may be clinically useful in disorders mediated by autoreactive T cell populations exhibiting V(β) restriction and in the treatment of clonal TcR-expressing lymphomas.

CT Medical Descriptors:

article

*cell killing

conjugate

human

human cell

leukemia cell line
lymphocyte membrane

normal human

priority journal

t lymphocyte

CT Drug Descriptors:

cd3 antigen: EC, endogenous compound

*immunotoxin

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ACCESSION NUMBER: 1995336721 EMBASE Full-text

TITLE: Recombinant immunotoxins: From basic research to cancer

therapy.

AUTHOR: Brinkmann, U.; Pastan, I. (correspondence)

CORPORATE SOURCE: Laboratory of Molecular Biology, Division of Cancer

Biology, National Cancer Institute, NIH, 9000 Rockville

Pike, Bethesda, MD 20892, United States.

SOURCE: Methods: A Companion to Methods in Enzymology, (1995) Vol.

8, No. 2, pp. 143-156.

ISSN: 1046-2023 CODEN: MTHDE9

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 016 Cancer

1026 Immunology, Serology and Transplantation
 1029 Clinical and Experimental Biochemistry
 1030 Clinical and Experimental Pharmacology

037 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 28 Nov 1995

Last Updated on STN: 28 Nov 1995

ED Entered STN: 28 Nov 1995

Last Updated on STN: 28 Nov 1995

AB Much work has been directed at the development of reagents that would combine the specificity of antibodies with potent and readily manipulated cytotoxic effector functions. In this review, we describe immunotoxins, molecules that contain an antibody-derived antigen binding region (Fv) coupled to a bacterial toxin, most commonly Diphtheria toxin or Pseudomonas exotoxin. Second-

^{*}t lymphocyte receptor beta chain

СТ

CT

RN

COUNTRY:

generation immunotoxins are fully recombinant fusion proteins containing a two-chain, disulfide-stabilized, or single-chain Fv region and a modified bacterial toxin. The relative advantages of the single-chain versus two-chain approach are described, as are techniques for purification of these agents from bacterial inclusion bodies. Finally, the use of such reagents as analytical tools in protein engineering and therapeutically, in cancer therapy, is discussed. Medical Descriptors: antigen binding antineoplastic activity *cancer: DT, drug therapy *cancer immunotherapy cell inclusion clinical trial conjugate disulfide bond drug binding drug cytotoxicity drug structure drug synthesis drug targeting human leukemia: DT, drug therapy nonhuman priority journal review Drug Descriptors: carbohydrate antigen: EC, endogenous compound diphtheria toxin hybrid protein immunoglobulin f(ab) fragment *immunotoxin: CT, clinical trial *immunotoxin: AN, drug analysis *immunotoxin: DT, drug therapy interleukin 2 receptor interleukin 2 receptor antibody pseudomonas exotoxin recombinant protein rácin transferrin receptor tumor antigen: EC, endogenous compound (interleukin 2 receptor antibody) 179045-86-4; (ricin) 9009-86-3 L147 ANSWER 65 OF 84 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN ACCESSION NUMBER: 1994152139 EMBASE Full-text TITLE: XomaZyme-CD5 immunotoxin in conjunction with partial T cell depletion for prevention of graft rejection and graft-versus-host disease after bone marrow transplantation from matched unrelated donors. AUTHOR: Koehler, M.; Hurwitz, C.A.; Krance, R.A.; Coustan-Smith, E.; Williams, L.L.; Santana, V.; Ribeiro, R.C.; Brenner, M.K.; Heslop, H.E., Dr. (correspondence) CORPORATE SOURCE: Div of Bone Marrow Transplantation, Department of Hematology-Oncology, St Jude Children's Research Hospital, 332 N Lauderdale, Memphis, TN 38103, United States. SOURCE: Bone Marrow Transplantation, (1994) Vol. 13, No. 5, pp. 571-575.

ISSN: 0268-3369 CODEN: BMTRE9

United Kingdom

216

DOCUMENT TYPE: Journal; Article FILE SEGMENT: 025 Hematology

026 Immunology, Serology and Transplantation

037 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 2 Jun 1994

Last Updated on STN: 2 Jun 1994

ED Entered STN: 2 Jun 1994

Last Updated on STN: 2 Jun 1994

Patients who receive bone marrow transplants from unrelated donors have a high AB incidence of graft-versus-host disease (GVHD). If the donor marrow is first T cell-depleted, the severity of GVHD declines but the risk of rejection rises. In an attempt to prevent both graft rejection and GVHD, we included an anti-T cell antibody-toxin conjugate (CD-5-Ricin; XomaZyme H65) in the transplant conditioning regimen. After receiving a partially T cell-depleted marrow, patients then received a second course of immunotoxin as additional GVHD prophylaxis. Eight recipients of unrelated donor marrow transplants were studied. All engrafted (ANC > $500 \times 10(6)/1$ by day 15, range 13-20 days). One patient had grade II skin GVHD and one developed grade IV disease but the other six patients had no acute GVHD. However, there was high morbidity and mortality from virus infections associated with a sluggish return of CD4 and CD8 T cells into the normal range. Four patients died from virus disease (CMV, n = 2; EBV, n = 1; adenovirus, n = 1) and the remaining patients had frequent documented viral illnesses during the first year. We conclude that improvement in the outcome of unrelated donor marrow transplantation will require strategies which prevent rejection and GVHD coupled with attempts to accelerate immune reconstitution.

CT Medical Descriptors:

adenovirus

adolescent

adult

article

*bone marrow transplantation

child

clinical article

conjugate

cytomegalovirus

epstein barr virus

female

*graft rejection: DT, drug therapy

*graft rejection: PC, prevention

*graft versus host reaction: DT, drug therapy *graft versus host reaction: PC, prevention

HLA matching

human

human cell

human tissue

immune system

intravenous drug administration

leukemia: DT, drug therapy

leukemia: RT, radiotherapy

leukemia: SU, surgery

leukemia: TH, therapy

*lymphocyte depletion

male

morbidity

mortality

preschool child

priority journal

school child skin manifestation: CO, complication skin manifestation: DT, drug therapy t lymphocyte virus infection: CO, complication virus infection: DT, drug therapy CT Drug Descriptors: aciclovir: DO, drug dose aciclovir: DT, drug therapy antiinfective agent: DT, drug therapy cd4 antigen: EC, endogenous compound *cd5 antigen: DT, drug therapy cd8 antigen: EC, endogenous compound cotrifamole: DT, drug therapy cyclophosphamide: CB, drug combination cyclophosphamide: DO, drug dose cyclophosphamide: DT, drug therapy cytarabine: CB, drug combination cytarabine: DO, drug dose cytarabine: DT, drug therapy ganciclovir: DO, drug dose ganciclovir: DT, drug therapy immunotoxin: AD, drug administration immunotoxin: CB, drug combination immunotoxin: DO, drug dose immunotoxin: DT, drug therapy methylprednisolone: CB, drug combination methylprednisolone: DO, drug dose methylprednisolone: DT, drug therapy *ricin: DT, drug therapy steroid: DO, drug dose steroid: DT, drug therapy *xomazyme: AD, drug administration *xomazyme: CB, drug combination *xomazyme: DO, drug dose *xomazyme: DT, drug therapy (aciclovir) 59277-89-3; (cotrifamole) 57197-43-0; (cyclophosphamide) 50-18-0; (cytarabine) 147-94-4, 69-74-9; (ganciclovir) 82410-32-0; (methylprednisolone) 6923-42-8, 83-43-2; (ricin) 9009-86-3 xoma (United States) L147 ANSWER 66 OF 84 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN ACCESSION NUMBER: 1992326834 EMBASE Full-text Targeting of specific domains of diphtheria toxin TITLE: by site-directed antibodies. AUTHOR: Sesardic, D. (correspondence); Khan, V.; Corbel, M.J. CORPORATE SOURCE: Division of Bacteriology, Natl Inst Biologic Standards Control, Blanche Lane, South Mimms, Hertfordshire EN6 3QG, United Kingdom. SOURCE: Journal of General Microbiology, (1992) Vol. 138, No. 10, pp. 2197-2203. ISSN: 0022-1287 CODEN: JGMIAN COUNTRY: United Kingdom DOCUMENT TYPE: Journal; Article FILE SEGMENT: 026 Immunology, Serology and Transplantation 037 Drug Literature Index 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology 052 Toxicology

LANGUAGE: English
SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 22 Nov 1992

Last Updated on STN: 22 Nov 1992

ED Entered STN: 22 Nov 1992

Last Updated on STN: 22 Nov 1992

AΒ Antibodies highly selective for two functionally distinct regions of diphtheria toxin (DTx) were prepared using synthetic peptide conjugates as immunogens. Three paptides were selected for synthesis: sequence DTx(141-157) on fragment A, which contains the putative protein elongation factor (EF-2) ADP-ribosyltransferase site; DTx(224-237) on fragment B, selected on the basis of forming a predicted surface loop; and DTx(513-526) on fragment B, forming a part of the region containing the putative receptor binding domain. All of the anti-peptide antibodies recognized the corresponding peptide, and also reacted with the toxin, specifically with the fragment containing the sequence against which they were raised, confirming the utility of this approach in generating fragment-specific antibodies. The anti-peptide antibody with the highest binding titre both to the peptide and to the native toxin was the one prepared against the sequence with the highest surface and loop likelihood indices of the three paptides selected. The similarity of the reactivity profiles with perticle and native and denatured toxin is consistent with the prediction that the region selected occurs in a surface loop and that the structure of the peptide is similar to the conformation of this region in the native protein. The epitopes for two of the anti- peptide antibodies were mapped. The results indicated that even though the antisera were raised to paptides containing 14 amino acids (aa) they were directed predominately against a narrow region within the peptide, consisting of only 5-6 aa residues. The predicted location of the peptide and their epitopes was confirmed by inspection of the X-ray crystallographic structure of DTx. Antibodies to peptides were selective for the toxin, one binding to DTx some 5-60-fold better than to diphtheria toxoid, presumably reflecting variability caused by toxoid preparation at this epitope. None of the antisera produced protected against DTx challenge in the guinea pig intradermal test in vivo. Although the availability of site-specific antibodies that recognize neutralizing epitopes would be very valuable, antibodies such as those described here should prove extremely useful in the structure-function analysis of DTx.

CT Medical Descriptors:

adenosine diphosphate ribosylation

animal experiment

animal model

antibody affinity

*antibody specificity

antigen binding

article

conjugate

controlled study

female

guinea pig

intracutaneous test

intradermal drug administration

nonhuman

priority journal

protein conformation

protein domain

protein structure

receptor binding

*toxin structure

X ray crystallography

CT Drug Descriptors:

*diphtheria toxin elongation factor 2 epitope

synthetic peptide *toxin antibody

L147 ANSWER 67 OF 84 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights

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ACCESSION NUMBER: 1988145480 EMBASE <u>Full-text</u>

TITLE: Protein A vectorized tomans - II. Preparation and

'in vitro' cytotoxic effect of protein A-ricin A chain

conjugate on antibody coated human tumour

cells.

AUTHOR: Ghetie, M.-A.; Moraru, I.; Margineanu, M.; Ghetie, V. CORPORATE SOURCE: Laboratory of Immunochemistry, Babes Institute, R-76201

Bucharest, Romania.

SOURCE: Molecular Immunology, (1988) Vol. 25, No. 5, pp. 473-477.

ISSN: 0161-5890 CODEN: IMCHAZ

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 016 Cancer

025 Hematology

037 Drug Literature Index

052 Toxicology

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 11 Dec 1991

Last Updated on STN: 11 Dec 1991

ED Entered STN: 11 Dec 1991

Last Updated on STN: 11 Dec 1991

AΒ Protein A of Staphylococcus aureus was covalently bound to reduced ricin A chain toxin by N-succinimidyl 3-(2-pyridyldithio)propionate. The conjugate consisting mainly of one molecule of protein A bound to two molecules of A chains (M(r) 107,000) was purified by tandem affinity chromatography on ConA-Sepharose 4B and IgG-Sepharose 4B. The purified protein A-A chain conjugate was able to bind and kill human lymphoma cells coated either with monoclonal mouse IgG2a anti-kappa antibody or with polyclonal rabbit anti-kappa antibody. The cytotoxic activity of protein A-A chain conjugate in conjunction with either mouse or rabbit anti-kappa antibodies was 10 times higher than that of rabbit IqG anti-mouse IqG coupled with A chain on Daudi cells coated with mouse anti-kappa antibody and 100 times higher than that of rabbit anti-kappa antibody coupled with A chain on non-coated Daudi cells. The cytotoxic effect of protein A-A chain conjugate on antibody-coated Daudi cells (9 x 10(-12) M) was comparable with that of ricin toxin on non-coated Daudi cells (2 x 10(-12)M). The results recommend the use of protein A-ricin A chain toxin conjugate as a unique specific toxin for the 'in vitro' killing of antibody-coated target cells.

CT Medical Descriptors:

*cancer cell destruction

cell culture

conjugate

*cytotoxicity

daudi cell

human

CT Drug Descriptors:

*monoclonal antibody

*protein a

*ricin a: DV, drug development

*ricin a: PD, pharmacology

L147 ANSWER 68 OF 84 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 2

1989:94249 BIOSIS Full-text

ACCESSION NUMBER: DOCUMENT NUMBER: PREV198987048385; BA87:48385

TITLE: HUMAN ANTIBODY RESPONSES TO TWO CONJUGATE

VACCINES OF HAEMOPHILUS-INFLUENZAE TYPE B

SACCHARIDES AND DIPHTHERIA TOXIN.

SEPPALA I [Reprint author]; SARVAS H; MAKELA O; MATTILA P; AUTHOR(S):

ESKOLA J; KAYHTY H

DEP BACTERIOLOGY AND IMMUNOLOGY, UNIV HELSINKI, CORPORATE SOURCE:

HAARTMANINKATU 3, 00290 HELSINKI, FINLAND

Scandinavian Journal of Immunology, (1988) Vol. SOURCE:

28, No. 4, pp. 471-480.

CODEN: SJIMAX. ISSN: 0300-9475.

DOCUMENT TYPE: Article FILE SEGMENT: LANGUAGE: ENGLISH

ENTRY DATE: Entered STN: 6 Feb 1989

Last Updated on STN: 6 Feb 1989

Entered STN: 6 Feb 1989 ED

Last Updated on STN: 6 Feb 1989

Antiquenicity of two Haemophilus influenzae type b (Hib) conjugate vaccines was AΒ studied by immunizing adults and 2-year-old children. Both vaccines induced strong anti-Hib responses and strong antibody responses to diphtheria toxin (DT), the protein part of the conjugate. The adults' responses were stronger than the children's. A conjugate of Hib <u>oligosaccharide</u> and mutant diphtheria toxin (HbOC) emerged as slightly superior to a conjugate of Hib polysaccharide and diphtheria toxoid (PRP-D). HbOC induced somewhat higher total anti-Hib responses and significantly higher IgG1 anti-Hib responses than PRP-D. IgG1 and IgG2 were the main IgG subclasses of the anti-Hib antibodies, whereas IgG1 and IqG4 were the main subclasses of the anti-DT antibodies. Within this main rule, the ratio IgG1/IgG2 of anti-Hib antibodies varied between individuals. The average ratio was higher than five in children but approximately one in adults. It was lower in adult recipients of the polysaccharide conjugate (0.69) than in adult recipients of the oligosaccharide conjugate (1.55). A large interindividual variation was observed in concentrations of IgG2 of Hib specificity, perhaps reflecting a small number of IgG2-committed B-cell clones participating in the response.

CC Cytology - Human 02508

Biochemistry studies - Proteins, peptides and amino acids

Biochemistry studies - Carbohydrates 10068

Metabolism - Carbohydrates 13004

Metabolism - Proteins, peptides and amino acids

Blood - Blood cell studies 15004

Blood - Lymphatic tissue and reticuloendothelial system

Pharmacology - Immunological processes and allergy 22018

Immunology - Bacterial, viral and fungal

Medical and clinical microbiology - Bacteriology

ΙT Major Concepts

> Blood and Lymphatics (Transport and Circulation); Immune System (Chemical Coordination and Homeostasis); Infection; Metabolism; Pharmacology

Miscellaneous Descriptors ΤТ

B CELL IMMUNOGLOBULIN

ORGN Classifier

Bacteria 05000

Super Taxa

Microorganisms

Taxa Notes Bacteria, Eubacteria, Microorganisms ORGN Classifier Irregular Nonsporing Gram-Positive Rods 08890 Super Taxa Actinomycetes and Related Organisms; Eubacteria; Bacteria; Microorganisms Taxa Notes Bacteria, Eubacteria, Microorganisms ORGN Classifier Hominidae 86215 Super Taxa Primates; Mammalia; Vertebrata; Chordata; Animalia Taxa Notes Animals, Chordates, Humans, Mammals, Primates, Vertebrates 58517-16-1 (DIPHTHERIA TOXIN) L147 ANSWER 69 OF 84 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on DUPLICATE 6 STN ACCESSION NUMBER: 1983:238121 BIOSIS Full-text DOCUMENT NUMBER: PREV198375088121; BA75:88121 ANTIBODY RESPONSES TO HAEMOPHILUS-INFLUENZAE TYPE TITLE: B AND DIPHTHERIA TOXIN INDUCED BY CONJUGATES OF OLIGO SACCHARIDES OF THE TYPE B CAPSULE WITH THE NONTOXIC PROTEIN CRM-197. ANDERSON P [Reprint author] AUTHOR(S): CORPORATE SOURCE: DEP PEDIATR MICROBIOL, UNIV ROCHESTER MED CENT, ROCHESTER, NY 14642, USA Infection and Immunity, (1983) Vol. 39, No. 1, SOURCE: pp. 233-238. CODEN: INFIBR. ISSN: 0019-9567. DOCUMENT TYPE: Article FILE SEGMENT: ВΑ LANGUAGE: ENGLISH Oligosaccharides were made from H. influenzae type b capsular polysaccharide and conjugated to CRM197 by reductive amination. Conjugates were made with a range of lengths and multiplicities of saccharide chains. All elicited a strongly enhanced anti-H. influenzae type b capsular polysaccharide response when injected into weanling rabbits. One series of conjugates also elicited antibodies to diphtheria toxin. Biochemistry methods - Proteins, peptides and amino acids CC 10054 Biochemistry methods - Carbohydrates 10058 Biochemistry studies - Proteins, peptides and amino acids 10064 Biochemistry studies - Carbohydrates Metabolism - Carbohydrates 13004 Metabolism - Proteins, peptides and amino acids 13012 Pharmacology - Immunological processes and allergy Toxicology - General and methods 22501 Toxicology - Antidotes and prevention Pediatrics - 25000 Physiology and biochemistry of bacteria Immunology - General and methods 34502 Immunology - Bacterial, viral and fungal 34504 Medical and clinical microbiology - Bacteriology ΙT Major Concepts Immune System (Chemical Coordination and Homeostasis); Infection; Pharmacology; Toxicology Miscellaneous Descriptors ΙT WEANLING RABBITS CHAIN LENGTH CHAIN MULTIPLICITY

ORGN Classifier

Bacteria 05000

Super Taxa

Microorganisms

Taxa Notes

Bacteria, Eubacteria, Microorganisms

ORGN Classifier

Irregular Nonsporing Gram-Positive Rods 08890

Super Taxa

Actinomycetes and Related Organisms; Eubacteria; Bacteria;

Microorganisms

Taxa Notes

Bacteria, Eubacteria, Microorganisms

ORGN Classifier

Leporidae 86040

Super Taxa

Lagomorpha; Mammalia; Vertebrata; Chordata; Animalia

Taxa Notes

Animals, Chordates, Lagomorphs, Mammals, Nonhuman Vertebrates, Nonhuman

Mammals, Vertebrates

RN 58517-16-1 (DIPHTHERIA TOXIN)

L147 ANSWER 70 OF 84 JAPIO (C) 2008 JPO on STN

ACCESSION NUMBER: 1985-067431 JAPIO Full-text

TITLE: MONOCLONAL ANTIBODY

INVENTOR: NAGAIKE KAZUHIRO; MURAMATSU MINORU; HOSOKAWA SEIKO

PATENT ASSIGNEE(S): MITSUBISHI CHEM IND LTD

PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|-------------|------|----------|-------|-------------|
| | | | | |
| JP 60067431 | A | 19850417 | Showa | A61K039-395 |

APPLICATION INFORMATION

STN FORMAT: JP 1983-176771 19830924 ORIGINAL: JP58176771 Showa PRIORITY APPLN. INFO.: JP 1983-176771 19830924

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined

Applications, Vol. 1985

ED 20020206

PURPOSE: To provide a monoclonal antibody recognizing the α -fetoprotein AΒ existing at the surface of cell membrane, and useful for the remedy of hepatocarcinoma, especially as an antibody for missile therapy. CONSTITUTION: A monoclonal antibody recognizing the α -fetoprotein (AFP) exsisting at the surface of cell membrane. In the markers of carcinoma, AFP and fetus antigen (CEA) are well known, and AFP is produced in various hepatocarcinoma and cerulein. Since said monoclonal antibody recognizes the AFP existing at the surface of cell membrane, it is suitable for the missile therapy by bonding the antibody with a carcinostatic agent or a toxin. The antibody can be prepared by (1) immunizing e.g. BALB/C mouse with AFP originated from human placenta, (2) extracting the spleen from the immunized animal, (3) carrying out the fusion with the mouse myeloma cell of e.g. P3-U1 using polyethylene glycol by conventional method to obtain a hybridoma, and (4) separating from the supernatant liquid. The monoclonal antibody prepared by this process is effective to dye the hepatocarcinoma cerulein immunochemically, and to select the positive antibody. COPYRIGHT: (C) 1985, JPO&Japio

IC ICM A61K039-395

ICS G01N033-574; G01N033-577

ICA C12N015-00; C12P021-00; C12Q001-04

L147 ANSWER 71 OF 84 BIOENG COPYRIGHT 2008 CSA on STN

ACCESSION NUMBER: 2004163578 BIOENG Full-text

DOCUMENT NUMBER: 1977846

TITLES: Tolerogenic conjugates of xenogeneic monoclonal

antibodies with monomethoxypolyethylene

glycol. I. Induction of long-lasting tolerance to

xenogeneic monoclonal antibodies.

AUTHOR: Maiti, PK; Lang, GM; Sehon, AH

CORPORATE SOURCE: MRC Group Allergy Res., Dep. Immunol., Univ. Manitoba,

Winnipeg, Man. R3E OW3, Canada

SOURCE: ADVANCES IN THE APPLICATIONS OF MONOCLONAL ANTIBODIES IN

CLINICAL ONCOLOGY., 1988, pp. 17-22, International Journal of Cancer [INT. J. CANCER.], no. 3 Suppl. Conference: 5. International Meeting at the Wolfson

Institute, London (UK), 25-27 May 1988

ISSN: 0020-7136

DOCUMENT TYPE: Book; Conference

LANGUAGE: English SUMMARY LANGUAGE: English

OTHER SOURCE: Biotechnology Research Abstracts (through 1992);

Immunology Abstracts

UP 20040602

The therapeutic effectiveness of xenogeneic monoclonal antibodies (MAbs) (xIg) or their conjugates with toxins (xIg-Tx) is undermined because of their inherent immunogenicity. This complication may be overcome by converting the antigenic xIg to tolerogenic derivatives by coupling an appropriate number of monomethoxypolyethylene glycol (mPEG) chains onto an xIg molecule. In this study, the test system consisted of inbred mice and human (myeloma) monoclonal immunoglobulins (HIgG) which were used in lieu of xIg; the immunizing antigen was heat-aggregated HIgG. The results of a variety of experimental protocols demonstrate that a long-lasting suppression (>95%) of anti-HlgG antibodies for periods in excess of 300 days was achieved by administration of tolerogenic HIgG(mPEG) sub(n) conjugates in spite of multiple injections of the immunizing antigen.

AN 2004163578 BIOENG Full-text

CC 30506 Therapeutic

CT monomethoxypolyethylene glycol; antibody response;

immunological tolerance

L147 ANSWER 72 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2005-09828 BIOTECHDS Full-text

TITLE: New compound, useful in the manufacture of a medicament for inhibiting cell death or the translocation of a viral or

bacterial toxin or viral transcription factor for treating or

preventing bacterial or viral infections;

a fusion protein toxin conjugate complexed with a monoclonal antibody

useful for the prevention and therapy of bacterium and

virus infection

AUTHOR: MURPHY J R; RATTS R; PEARSON D A

PATENT ASSIGNEE: BOSTON MEDICAL CENT CORP PATENT INFO: WO 2005014798 17 Feb 2005 APPLICATION INFO: WO 2004-US9829 31 Mar 2004

PRIORITY INFO: US 2003-459185 31 Mar 2003; US 2003-459185 31 Mar

2003

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: WPI: 2005-173098 [18]

AB DERWENT ABSTRACT:

NOVELTY - A compound of formula (I), is new.

DETAILED DESCRIPTION - The compound of formula (I), is new. X-AA210-AA211-AA212-AA213-AA214-AA215-AA216-AA217-AA218-AA219-AA220-AA221- AA222-Y (I). X = H or chain of amino acids (1-5 residues substituted at the Nterminus with a nitrogen protecting group, R1-C(0)-, or H); Y=H, OH, NH2, NHR2, NHR2R3, OR4, or chain of amino acids (1 to 76 residues substituted at the C-terminus with OH, NH2, NHR2, NHR2R3, or OR4); R1 = 1-6C alkyl, 6-10Caryl, 1-9C heterocyclyl, 1-6C alkoxy, 7-16C aralkyl, 2-15C heterocyclylalkyl, 7-16C aralkoxy, 2-15C heterocyclyloxy, or a polyathylene glycol moiety; R2 and R3 = H, 1-6C alkyl, 6-10C aryl, 1-9C heterocyclyl, 7-16C aralkyl, 2-15C heterocyclylalkyl, or a polyethylene glycol moiety; R4 = H, 1-6C alkyl, 6-10C aryl, 1-9C heterocyclyl, 1-6C alkoxy, 7-16C aralkyl, 2-15C heterocyclylalkyl, a carboxyl protecting group, or a polyethylene glycol moiety; AA210 = is Arg or Lys, preferably Arg; AA211 = is Asp or Glu, preferably Asp; AA212 = is Lys or Arg, preferably Lys; AA213 = is Thr, Ser, Ala, Gly, Val, Asn, or Gln, preferably Thr; AA214 = Lys or Arg, preferably Lys; AA215 = Thr, Ser, Ala, Gly, Val, Asn, or Gln, preferably Thr; AA216 = Lys or Arg, preferably Lys; AA217 = His, Leu or Val, preferably Ile; AA218 = Glu or Asp, preferably Glu; AA219 = Ser, Ala, or Gly, preferably Ser; AA220 = Leu, His or Val, preferably Leu; AA221 = Lys or Arg, preferably Lys; and AA222 = Glu or Asp, preferably Glu. INDEPENDENT CLAIMS are also included for the following: (1) a compound having a nucleic acid sequence encoding the peptide sequence of the compound of formula (I); (2) a method of identifying a compound that inhibits cell death in a mammal; and (3) a method of identifying a compound that promotes cell death in a mammal.

BIOTECHNOLOGY - Preferred Compound: The compound is useful in the manufacture of a medicament for inhibiting cell death in a mammal. The medicament further comprises a vehicle. The compound inhibits the translocation of a viral or bacterial toxin from the lumen of an endosome to the cytosol of the cell or the translocation of a viral or retroviral transcription factor. The toxin is an AB toxin. The toxin is Diphtheria toxin, a Botulinum toxin, Anthrax toxin LF or Anthrax toxin EF. The factor is human immunodeficiency virus reverse transcriptase. The factor is Tat. The nucleic acid sequence encodes a peptide sequence consisting of: (1) Arg-Asp-Lys-Thr-Lys-Thr-Lys-Ile-Glu-Ser-Leu-Lys-Glu-His-Gly-Pro- Ile-Lys-Asn-Lys-; (2) Asp-Trp- Asp-Val-Ile- Arg-Asp-Lys-Thr-Lys-Thr-Lys- Ile-Glu-Ser-Leu-Lys-Glu-His-GIy-; or (3) Arg-Asp-Lys-Thr-Lys-Thr-Lys-Ile- Glu-Ser-Leu-Lys-Glu-His-Gly-Pro-Ile-Lys- Asn-Lys. The nucleic acid sequence is operably linked to an inducible promoter. The expression of the peptide sequence is moderated by treating the cell with an agent consisting of doxycycline, retinal, cyclosporin or its analog, FK506, FK520, or rapamycin or its analog. Preferred Method: The compound is further reacted with a monoclonal antibody, or its fragment to form a covalent bond between a sulfur atom of the antibody and the maleimide group of the compound. Identifying a compound that inhibits cell death in a mammal comprises: (1) isolating endosomes from the cell; (2) placing the endosomes in a cytosolic buffer; (3) contacting the endosomes with a fusion protein-toxin, where the protein comprises a binding moiety for a component of the cell membrane of the cell and the toxin comprises a fragment of Diphtheria toxin; (4) contacting the endosomes with a cytosolic translocation factor complex; (5) contacting the endosomes with the compound; and (6) measuring translocation of the toxin, where a decreased level of the translocation relative to that observed in the absence of the compound indicates that the compound inhibits the cell death. The endosomes are early endosomes. The protein is IL-2. The fusion protein-toxin is DAB389IL-2. The cytosolic translocation factor comprises Hsp 90 and thioredoxin reductase. Measuring the translocation comprises measuring the ADP-ribosylation of elongation factor-2. Identifying a compound that promotes cell death in a mammal comprises: (1) isolating endosomes from the cell; (2) placing the endosomes in a cytosolic buffer; (3) contacting the endosomes with a fusion

protein-toxin, where the protein comprises a binding moiety for a component of the cell membrane of the cell and the toxin comprises a fragment of Diphtheria toxin; (4) contacting the endosomes with a cytosolic translocation factor complex; (5) contacting the endosomes with the compound; and (6) measuring translocation of the toxin, where an increased level of the translocation relative to that observed in the absence of the compound indicates that the compound promotes the cell death.

ACTIVITY - Antibacterial; Virucide. No biological data given. MECHANISM OF ACTION - Vaccine.

USE - The compound is useful in the manufacture of a medicament for inhibiting cell death in a mammal, or for inhibiting the translocation of a viral or bacterial toxin, e.g., Diphtheria toxin, a Botulinum toxin, Anthrax toxin LF or Anthrax toxin EF, from the lumen of an endosome to the cytosol of the cell or the translocation of a viral or retroviral transcription factor, e.g., human immunodeficiency virus reverse transcriptase or Tat (claimed) for treating or preventing bacterial or viral infections.

EXAMPLE - No relevant examples given. (100 pages)

AN 2005-09828 BIOTECHDS Full-text

CC THERAPEUTICS, Protein Therapeutics; GENETIC TECHNIQUES and APPLICATIONS, Gene Expression Techniques and Analysis; DISEASE, HIV and Other Virus Infections; DISEASE, Infectious Disease (non-viral); PHARMACEUTICALS, Antibodies

CT FUSION PROTEIN, DIPHTHERIA TOXIN, BOTULINUM TOXIN, ANTHRAX TOXIN, CONJUGATE, MONOCLONAL ANTIBODY, ENDOSOME, APPL., BACTERIUM, VIRUS, INFECTION, PREVENTION, THERAPY PROTEIN ANTIBACTERIAL VIRUCIDE PROTEIN SEQUENCE (24, 15)

L147 ANSWER 73 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2003-04949 BIOTECHDS Full-text

TITLE: Producing antibodies in a mammal, useful in research,

diagnostic, therapeutic or industrial applications, by

administering an antibody-producing cell from a donor source

to a non-rodent, non-human recipient mammal;

antibody production via cell culture use in therapy and $% \left(1\right) =\left(1\right) \left(1\right)$

diagnosis

AUTHOR: ROBL J M; GOLDSBY R A

PATENT ASSIGNEE: AMHERST COLLEGE

PATENT INFO: WO 2002074938 26 Sep 2002 APPLICATION INFO: WO 2002-US8645 $20 \, \text{Mar} \, 2002$

PRIORITY INFO: US 2001-277460 20 Mar 2001; US 2001-277460 20 Mar

2001

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: WPI: 2002-759894 [82]

AB DERWENT ABSTRACT:

NOVELTY - Producing antibodies in a mammal comprising administering an antibody-producing cell from a donor source to a non-rodent, non-human recipient mammal in a site other than the peritoneal cavity, or during the embryonic or fetal stage of the recipient mammal, is new.

DETAILED DESCRIPTION - Producing antibodies in a mammal comprising: (a) administering an antibody-producing cell from a donor source to a non-rodent, non-human recipient mammal in a site other than the peritoneal cavity, and isolating the antibodies produced by the antibody-producing cell from the recipient mammal; or (b) administering an antibody-producing cell from a donor source to a non-rodent, non-human recipient mammal during the embryonic or fetal stage of the recipient mammal, and isolating the antibodies produced by the antibody-producing cell from the recipient mammal during the embryonic, fetal or postnatal stage of the recipient mammal. INDEPENDENT CLAIMS are also included for the following: (1) transplanting an antibody-producing cell into a recipient mammal or non-human mammal; and (2) treating

or preventing a diseases, disorder or infection in a mammal, comprising: (a) inserting a nucleic acid encoding a desired antibody into a cell obtained from the mammal to form an antibody-producing cell; and (b) administering the antibody-producing cell to the mammal.

BIOTECHNOLOGY - Preferred Method: In these methods, the immune system of the recipient mammal is less responsive than normal. The antibody-producing cell is administered to a mammary gland, uterus, dewlap, brisket, scrotum, testicle or hump of the recipient mammal. The antibody-producing cell (preferably at least 10 antibody-producing cells) is administered subcutaneously to the recipient mammal. These antibodies are isolated from the blood, milk or lymph of the recipient mammal. The antibodies are monoclonal, polyclonal, humanized or bifunctional. These antibodies are covalently linked to a toxin, therapeutically active compound, enzyme, cytokine or affinity tag. The method further comprises administering a compound that inhibits B-cell activity to the recipient mammal in order to reduce such activity in the mammal. The method further comprises administering a compound that inhibits T-cell activity to the recipient mammal in order to reduce the T-cell activity in the mammal. The antibodyproducing cell may also be obtained from a donor source of a different genus or species as the recipient mammal. The method further comprises administering a cell (preferably an adult bone marrow cell or a fetal cell) of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. The method further includes administering a protein (specifically a serum protein) from a cell, embryo, fetus or mammal of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. In method (1), transplanting an antibody-producing cell into a recipient mammal comprises: (a) tolerizing the recipient mammal to the antibody-producing cell or to the antibodies produced by the antibody-producing cell; and (b) administering the antibody-producing cell to the recipient mammal. The antibody-producing cell may also be obtained from a donor source of a different genus or species as the recipient mammal. The tolerization comprises administering a cell (preferably an adult bone marrow cell or a fetal cell) of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. Tolerization also comprises administering the serum protein from a cell, embryo, fetus or mammal of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. The method may also comprise: (a) suppressing the immune system of the recipient mammal by administering a compound that inhibits B-cell and/or T-cell activity to the recipient mammal; and (b) administering an antibodyproducing cell to the recipient mammal. Preferably, the recipient mammal is a human and the antibody-producing cell is a human cell. Transplanting an antibody-producing cell into a non-human recipient mammal may also comprise administering an antibody-producing cell to a recipient chimeric mammal, or to a mammal having a mutation that reduces or eliminates the expression or activity of immunoglobulin (Ig)M, IgD, IgG, IgE, IgA, RAG1 or RAG2. Preferably, the compound that inhibits B-cell activity is an anti-IgM antibody. The compound that inhibits T-cell activity is preferably cyclosporin, azathioprine, dexamethasone, an anti-CD3 antibody, an anti-CD2 antibody or an anti-CD25 antibody. The compound is administered to the recipient mammal during or after the normal period of immune system development of the recipient mammal. Method (2) further comprises inserting a nucleic acid encoding an oncogene prior to step (a), and removing the nucleic acid encoding an oncogene prior to step (b). Preferred Recipient Mammal: The recipient mammal is a chimeric mammal that comprises both cells of the same genus or species as the donor source and cells of a different genus or species. This chimeric mammal is generated by administering cells of the same genus or species as the antibody-producing cell to the recipient mammal

during the embryonic or fetal stage of the recipient mammal. The recipient mammal may also comprise a mutation (which is preferably a homozygous mutation) that reduces or eliminates the expression or activity of IgM, IgD, IgG, IgE, IgA, RAG1 or RAG2. The recipient mammal is a sheep, goat, buffalo, rabbit, pig, or preferably a cow or human.

USE - The method is useful for producing antibodies in mammals. The antibodies produced are useful in research, diagnostic, therapeutic or industrial applications.

ADMINISTRATION - The antibody-producing cell (preferably at least 10 antibody-producing cells) is administered subcutaneously to the recipient mammal (claimed).

ADVANTAGE - The present method is rapid and less expensive than prior methods. This method also produces little or no discomfort in the mammals that generate the antibodies.

EXAMPLE - A mouse hybridoma that secretes anti-tetanus antibody was produced using standard methods by the polyethylene glycol (PMG)-assisted fusion of mouse SP2/0 cells with spleen cells from a Balb/C mouse immunized with tetanus toxoid. 5x10 to the power 8 cells of this hybridoma were injected into the dewlap, and 5x10 to the power 8 cells were injected into the mammary region of a 14 day old male calf. A blood sample was taken 10 days after implantation contained mouse immunoglobulin, which reacted with tetanus toxoid but did not react with bovine serum albumin (BSA) or a peptide derived from beta amyloid protein, based in standard enzyme linked immunosorbent assay (ELISA) analysis.(60 pages)

AN 2003-04949 BIOTECHDS Full-text

CC PHARMACEUTICALS, Antibodies; BIOMANUFACTURING and BIOCATALYSIS, Animal/Plant Cell Culture; DIAGNOSTICS, Antibody-Based Diagnostics

CT MONOCLONAL ANTIBODY, HUMANIZED ANTIBODY PREP., HYBRIDOMA, NON-RODENT, NON-HUMAN RECIPIENT MAMMAL, SHEEP, GOAT, BUFFALO, RABBIT, PIG, CATTLE, APPL. DIAGNOSIS, THERAPY ANTIBODY ENGINEERING CELL CULTURE ANIMAL MAMMAL (22, 09)

L147 ANSWER 74 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN ACCESSION NUMBER: 2002-13076 BIOTECHDS Full-text

TITLE: New human antibody that specifically binds to Pseudomonas

aeruginosa lipopolysaccharide, useful for treating or preventing Pseudomonas aeruginosa infection in patients with

burns or prosthesis;

antibody engineering for use in infection therapy

AUTHOR: SCHREIBER J R; KAMBOJ K K
PATENT ASSIGNEE: SCHREIBER J R; KAMBOJ K K
PATENT INFO: WO 2002020619 14 Max 2002
APPLICATION INFO: WO 2000-US28019 7 Sep 2000
PRIORITY INFO: US 2001-259472 3 Jan 2001

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: WPI: 2002-351767 [38]

AB DERWENT ABSTRACT:

NOVELTY - An isolated human antibody or its antigen-binding portion (I), that was expressed in a non-human animal and specifically binds to Pseudomonas aeruginosa (PA) lipopolysaccharide (LPS), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) a pharmaceutical composition (PC) comprising (I); (2) a kit (K) comprising (I), a pharmaceutically acceptable carrier and a container; (3) an isolated cell line (II) that produces (I); (4) producing (I); (5) a nucleic acid molecule (III) isolated from a non-human animal that encodes a human antibody heavy chain (Ab1), or a human antibody light chain (Ab2) or their antigen-binding portion that specifically binds to PA LPS; (6) a vector (IV) comprising (III); (7) an isolated host cell (Va) comprising, (III) or (IV); (8) recombinantly producing Ab1 and/or Ab2; (9) an isolated heavy chain

or light chain or their antigen-binding portions obtained from (I), encoded by (III), or isolated from (Va); (10) a non-human transgenic animal (VI) comprising (III); (11) a fusion protein (VII) comprising (I) and a second polypeptide sequence; (12) a hybridoma cell line (VIII) that produces the S20 mAb, and having a specific American Type Culture Collection Accession Number; (13) a monoclonal antibody produced by (VIII); (14) a human monoclonal antibody (IX) or its antigen-binding portion that inhibits the binding of (I); and (15) a passive vaccine for preventing or inhibiting PA infection, comprising (I) or (IX).

BIOTECHNOLOGY - Preparation: (I) is obtained by culturing a non-human cell capable of producing (I) under conditions in which (I) is produced, and isolating the antibody from the cell culture. The cell is a hybridoma or is transformed with isolated nucleic acids encoding (I), where the cell is bacterial, yeast, insect, amphibian, or mammalian. The mammalian cell is human, mouse, rat, dog, monkey, goat, pig, bovine or hamster. preferably a HeLa cell, a NIH 3T3 cell, a Chinese hamster Ovary (CHO) cell, a Baby Hamster Kidney (BHK) cell, a VERO cell, a CV-1 cell, a NS/0 cell, or a COS cell. (I) is also produced by: (a) immunizing a non-human animal having incorporated a human immunoglobulin locus, with a PA antigenic composition; (b) allowing the non-human animal to mount a humoral response to the antigenic composition; and (c) isolating the human antibody from the nonhuman animal. Alternately, (I) is produced by: (a) immunizing a non-human animal comprising a human immunoglobulin locus, with an antigen selected from: (i) a PA LPS preparation; (ii) a virile PA cell preparation; or (iii) an attenuated or killed PA cell preparation; (b) allowing the non-human animal to mount an immune response to the antigen; and (c) isolating the antibody from the non-human animal. The antibody is isolated from the animal or cell that is free of contaminating human biomaterials. Preferred Antibody: (I) opsonizes and facilitates phagocytosis of, enhances the immune response to, and facilitates the killing of, PA cells, by delivering an agent lethal to PA cells. (I) inhibits PA infection, and binds to PA LPS with a dissociation constant (Kd) of 1 - 5 x 10 to the power of -7 M, preferably 1 - 5×10 to the power of -8 M. PA LPS is derived from a PA strain 06ad, 011, Habs16, 170003 or PA01 Halloway. (I) has a half-life in vivo of 1 hour to 30 days, preferably 1 hour to 15 days. (I) is derived from an immunoglobulin molecule having a heavy chain isotype chosen from immunoglobulin G (IgG), IgM, IgE, IgA and IgD. (I) comprises a kappa light chain and its framework sequences encoded by a Vk2/A2 gene, or a lambda light chain. The kappa light chain comprises a sequence of 127 amino acids, given in the specification, encoded by a sequence comprising 381 nucleotides, given in the specification. (I) further comprises a heavy chain composed of variable (V), diversity (D), and Joining (J) regions composed of their framework sequences. Region (V) is encoded by a human VH3/V3-33 gene, and (D) is encoded by a human D2-8 gene, and (J) is encoded by a human JH4b gene. The heavy chain comprises a sequence of 154 amino acids, given in the specification, encoded by a sequence of 462 nucleotides, given in the specification. (I) is a single chain or bispecific chimeric antibody. (I) is derivatized with a polyethylene glycol, methyl or ethyl group or carbohydrate group. (I) is a fusion with a second protein. (I) specifically binds to an PA LPS O-specific side chain, preferably to PA strain PA01 LPS O-specific side chain or PA strain 170003 LPS O-specific side chain. The antibody or antigen-binding portion of it is labeled with a radiolabel, enzyme label, fluorescent label, toxin, magnetic agent, second antibody, affinity label, epitope tag, antibiotic, complement protein or cytokine. The isolated heavy chain or antigen binding-portion is mu, gamma, delta, epsilon, or alpha, and comprises 1 - 10 amino acid substitutions that increase the serum half-life of the antibody. Preferred Animal: (VI) is a mouse, rat, hamster, cow, sheep, primate, horse or pig. (I) is expressed on the surface of cells derived from the animal's B-lymphocyte cells or its progeny. (I) is secreted into lymph, blood, milk, saliva or ascites of the animal. The relative binding avidity of (I) is 1.0. Preferred Nucleic Acid:

(III) comprises a sequence of 462 nucleotides encoding Ab1 or a sequence of 381 nucleotides encoding Ab2, where the sequences are given in the specification.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Phagocytosis of PA opsonizer and facilitator; immune response to PA enhancer; PA infection inhibitor (claimed); vaccine. The protective efficacy of (I) against invasive infection with P. aeruginosa (PA) was measured in the neutropenic mouse model. Six week-old female BALB/c ByJ mice were maintained in a pathogen-free, pseudomonas-free environment. Neutropenia was established by administering 3 mg of cyclophosphamide, intraperitoneally (i.p.) to each mouse on days 1, 3 and 5. On day 5, cyclophosphamide was administered at time 0 hours, and 2 hours later 10 micrograms of S20 or phosphate buffered saline (PBS) control was administered i.p., followed by 10 to the power of 3 colony forming units (cfu) of live P. aeruginosa 06ad PA two hours later. Mice were observed daily and mortality was the outcome measured. Infected mice treated with the PBS control began dying one day after PA infection. After two days, 100 % of the mice treated with S20 antibody showed protection and were alive two days after PA infection, demonstrating the protective potential of S20 in preventing PArelated fatalities in patients.

USE - (I) is useful for treating or preventing PA infection in patients with burns or prosthesis, or a surgical, respiratory, cancer, cystic fibrosis or an immunocompromised patient. (I) is also useful for detecting the presence of PA in a biological sample (claimed).

ADMINISTRATION - (I) is administered through transmucosal, oral, inhalation, ocular, rectal, long acting implantation, liposomes, emulsion, cream, topical or sustained release means (claimed). No dosage is specified.

EXAMPLE - Pseudomonas aeruginosa (PA) serotype 06ad was used for mouse immunizations, mouse protection assays and opsonic assays. Bacteria for mouse challenge assays were incubated at 37 degrees Centigrade, and 1 colony forming unit (cfu) was inoculated into Luria-Bertani (LB) broth and was incubated at 37 degrees Centigrade in a shaking water bath to a concentration of 5×10 to the power of 8 cfu/ml. Bacteria were centrifuged, resuspended, washed, grown for immunizations and heat-killed at 60 degrees Centigrade for 1 hour. A high molecular weight (MW) polysaccharide portion of lipopolysaccharide (LPS) O-specific side chains from PA strains 06ad, 011, Habs16, 170003, and PA01 Halloway LPS were made and were lyophilized. The high MW PS were used to coat 96-well plates for enzyme-linked immunosorbant assays (ELISA). The 06ad high MW PS was also used in blocking and avidity. Mice that were transgenic for human heavy and light immunoglobulin (Ig) were bred and maintained. The strain of Xenomouse (RTM) used was Xma2a-3, which was an Iq-inactivated mouse reconstituted with a yeast artificial chromosome (YAC) containing cointegrated human heavy and light chain transgenes. Mice were immunized with 10 to the power of 7 heat-killed PA 06ad PA twice per week intraperitoneally (i.p.) and/or in foot pad, and their sera screened for anti-PA 06ad LPS antibodies by ELISA. Hybridomas were generated by fusing spleen and/or lymph node cells from immunized, seropositive Xenomouse(RTM) animals with a nonsecreting sp2/0 myeloma cell line. Supernatants from hybridomas were screened for production of human anti-PA 06ad LPS by ELISA, and hybridomas found to be secreting IgG anti-LPS antibodies were then cloned three times by limiting dilution. One IgG2-secreting clone (S20) was chosen based on initial measurements of strength of binding to solid phase PA 06ad PS. (84 pages)

- AN 2002-13076 BIOTECHDS Full-text
- CC PHARMACEUTICALS, Antibodies; GENETIC TECHNIQUES and APPLICATIONS, Gene Expression Techniques and Analysis; GENETIC TECHNIQUES and APPLICATIONS, Transgenic Animals and Animal Models; DISEASE, Infectious Disease (non-viral); BIOMANUFACTURING and BIOCATALYSIS, Animal/Plant Cell Culture; THERAPEUTICS, Protein Therapeutics; PHARMACEUTICALS, Vaccines PSEUDOMONAS AERUGINOSA LIPOPOLYSACCHARIDE-SPECIFIC HUMAN MONOCLONAL

ANTIBODY PREP., FUSION PROTEIN PREP., VECTOR-MEDIATED GENE EXPRESSION IN E.G. HYBRIDOMA, BACTERIUM, YEAST, INSECT, AMPHIBIAN, MAMMAL, HUMAN, MOUSE, RAT, DOG, MONKEY, GOAT, PIG, CATTLE, HAMSTER CELL, HELA, NIH3T3, CHO, BHK, VERO, CV-1, NS/0, COS CELL CULTURE, NON-HUMAN TRANSGENIC ANIMAL, ANTIBODY ENGINEERING, APPL. BURN PATIENT INFECTION, PROSTHESIS-INDUCED INFECTION THERAPY, VACCINE BACTERIUM MAMMAL ANIMAL ANTIBODY ENGINEERING FUNGUS ARTHROPOD CELL CULTURE HUMAN CERVIX CARCINOMA TUMOR MOUSE FIBROBLAST CHINESE HAMSTER OVARY BABY HAMSTER KIDNEY MONKEY KIDNEY (21, 40)

L147 ANSWER 75 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1995-13156 BIOTECHDS Full-text

TITLE: Mutated antibody with non-native light chain

glycosylation;

antibody engineering for introduction of an asparagine

qlycosylation site for attachment of a label or therapeutic; immunotoxin and immunotherapy

AUTHOR: Hansen H J; Leung S

PATENT ASSIGNEE: Immunomedics

PATENT INFO: WO 9515769 15 Jun 1995
APPLICATION INFO: WO 1994-US13668 5 Dec 1994
PRIORITY INFO: US 1993-162912 8 Dec 1993

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: WPI: 1995-224151 [29]

An ew mutated recombinant antibody (Ab) or Ab fragment has a non-native Asn glycosylation site at position 18 of the light chain. Also new are: soluble immunoconjugates of a Fab, Fab', F(ab)2, F(ab')2, Fv or single chain Fv fragment including a light chain variable region substituted by a carbohydrate at position 18 and a polymer with over 1 free amino group (for covalent bonding to the carbohydrate substituent) and many covalently bound drug, toxin, chelator, boron addend or detectable label molecules; and similar soluble immunoconjugates, but with more than 1 drug, toxin, chelator, peg, boron addend or detectable label covalently linked to the carbohydrate substituent. The conjugates retain the immunoreactivity of the antibody fragment. The immunoconjugates when labeled are useful for diagnosis of diseases where the Ab is specific for a disease-associated antigen and for therapy of e.g. myocardial infarction, deep vein thrombosis, atherosclerosis, inflammatory disease, cancer and autoimmune disease. (86pp)

AN 1995-13156 BIOTECHDS Full-text

CC D PHARMACEUTICALS; D6 Antibodies; A GENETIC ENGINEERING AND FERMENTATION; A1 Nucleic Acid Technology

CT RECOMBINANT ANTIBODY ENGINEERING, ASPARAGINE GLYCOSYLATION SITE INTRODUCTION TO LIGHT CHAIN, APPL. DEEP VEIN THROMBOSIS, MYOCARDIAL INFARCTION, ATHEROSCLEROSIS, INFLAMMATORY DISEASE, CANCER, AUTOIMMUNE DISEASE, DIAGNOSIS, IMMUNOTOXIN, IMMUNOTHERAPY FAB FAB' F(AB)2 F(AB')2 FV SINGLE CHAIN ANTIBODY TOXIN TUMOR PROTEIN THERAPY ANTITUMOR ANTIINFLAMMATORY (VOL.14, NO.22)

L147 ANSWER 76 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1990-12597 BIOTECHDS <u>Full-text</u>

TITLE: Purified carbohydrate isolated from chronic myelogenous

leukemia cell;

useful for raising monoclonal antibody for use in

diagnosis and therapy or as immunotoxin.

PATENT ASSIGNEE: La-Jolla-Cancer-Res.Found.

PATENT INFO: US 4939088 3 Jul 1990

APPLICATION INFO: US 1986-924935 30 Oct 1986 PRIORITY INFO: US 1986-924935 30 Oct 1986

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 1990-224016 [29]

The purified carbohydrate, CML-G2, of structure (I) is new. (I) is a specific marker from chronic myelogenous leukemia (CML) cells. It is immunogenic and can be used to produce polyclonal and monoclonal antibodies for diagnosis and therapy. It is isolated from granulocyte cells from CML patients using column chromatography, HPLC and high performance-TLC. In an example of the preparation of CML-G2 specific monoclonal antibodies, BALB/c mice were immunized with CML-G2, and spleen cells from immunized mice were fused with other mammalian myeloma cells at a fusion ratio of 10:1 in 35% PEG. Hybridomas were selected in HAT-containing medium and were screened for reactivity against CML-G2 via ELISA. Positive clones were expanded and subcloned twice. The resulting monoclonal antibodies may be conjugated with diphtheria toxin A chain or with ricin to form immunotoxins. The antibodies and immunotoxins are used in the therapy and diagnosis of CML. (9pp)

AN 1990-12597 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals

CT HUMAN CHRONIC MYELOGENOUS LEUKEMIA TUMOR MARKER CARBOHYDRATE CML-G2 ISOL., PURIFICATION, MOUSE MONOCLONAL ANTIBODY PREP., HYBRIDOMA CONSTRUCTION, DIPHTHERIA TOXIN-A, RICIN IMMUNOTOXIN PREP., APPL. DIAGNOSIS, THERAPY MAMMAL CELL CULTURE CYTOSTATIC

L147 ANSWER 77 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1989-04742 BIOTECHDS <u>Full-text</u>

TITLE: New protein receptor p70-75 for interleukin-2;

recombinant interleukin-2 receptor capable of binding p70-75 and useful for destroying LAK-sensitive cell;

monoclonal antibody preparation and hybridoma construction

PATENT ASSIGNEE: U.S.Dept.Commerce

PATENT INFO: WO 8900168 12 Jan 1989
APPLICATION INFO: WO 1988-US1806 27 May 1988

PRIORITY INFO: US 1988-165302 3 Max 1988; US 1987-66989 29 Jun

1987

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: WPI: 1989-039632 [05]

A protein of mol.weight 70-75,000 and with specific binding affinity to an AΒ epitope of interleukin-2 (IL-2) is new. The protein rests on IL-2-activated large granular lymphocytes and is a component of a high affinity interleukin-2 receptor. Also new are: (1) lymphokine-activated killer (LAK) cells produced by the interaction of lymphocytes that express the protein with IL-2W1; (2) a method for destroying LAK-sensitive cells which comprises contacting them with the LAK cells; (3) IL-2W1; (4) IL-2W2; (5) a pharmaceutical composition comprising an effective amount of LAK and a carrier; (6) anti-p70-75 antibody or its fragment; (7) a p70-75 antibody conjugated to a cytotoxic agent (e.g. a toxin or a radionuclide); and (8) a method for neutralizing or killing p70-75 expressing cells using the antibody. In an example, p70-75 was injected twice into BALB/c mice at 3-wkintervals. Spleen cells were fused with NS1 mouse myeloma cells using 30% PRG and hybridomas were selected in HAT medium and tested for monoclonal antibody production in an ELISA. Positive hybridomas were cloned by limiting dilution. (19pp)

AN 1989-04742 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals; A MICROBIOLOGY; A1 Genetics

CT RECOMBINANT INTERLEUKIN-2 RECEPTOR PREP., NEW RECOMBINANT GP70-75 EPITOPE LYMPHOKINE ACTIVATED KILLER CELL CULTURE, MONOCLONAL ANTIBODY PREP., HYBRIDOMA CONSTRUCTION MAMMAL CELL CULTURE

L147 ANSWER 78 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1989-04118 BIOTECHDS <u>Full-text</u>
TITLE: Production of IgD <u>antibody</u> and <u>toxin</u>
conjugate for leukemia therapy;

IgD monoclonal antibody production and hybridoma

construction

PATENT ASSIGNEE: Univ.Texas-Syst.

PATENT INFO: US 4792447 <u>20 Dec 1988</u>
APPLICATION INFO: US 1983-498754 <u>27 May 1983</u>
PRIORITY INFO: US 1983-498754 <u>27 May 1983</u>

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: WPI: 1989-015609 [02]

A new process for treating B-lymphocyte tumors (e.g. leukemia) in mammals involves administering an antibody-toxin conjugate which comprises an IgDspecific antibody and one or more toxin molecules. Suitable toxins include the A-chain portion of ricin, abrin, modeccine, botulina, and diphtheria toxin. The antibody can be an Fab, Fab', Fab'2, or Fv fragment. The toxin(s) is coupled to the antibody either by direct condensation or via a bridging group e.g. diisocyanate, or glutaraldehyde. In an example, spleen cells from BALB/c mice bearing the monoclonal mouse B-lymphocyte leukemia tumor BCL1 were stimulated and fused with P3/X63-Ag.8 myeloma cells using PEG. The resultant hybridomas secreted IgM-lambda. IgM was purified from ascites and used to stimulate production of rabbit anti-idiotype. Rabbits were immunized with 100 ug IgM in complete Freund's adjuvant (CFA). 100 ug Boosters were administered 4 wk later, and 100 ug booster in CFA were administered when titers of immunoglobulin production dropped after 1 wk-1 yr. The anti-idiotype was purified by affinity chromatography and were conjugated with toxin. (9pp)

AN 1989-04118 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals

CT B-LYMPHOCYTE LEUKEMIA TUMOR BCL1, IGD MONOCLONAL ANTIBODY PREP.,
HYBRIDOMA CONSTRUCTION, ANTI-IDIOTYPE IMMUNOTOXIN CONJUGATE PREP., APPL.
IN LEUKEMIA THERAPY MAMMAL CELL CULTURE RICIN ABRIN MODECCINE BOTULINA
DIPHTHERIA TOXIN

L147 ANSWER 79 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN ACCESSION NUMBER: 1986-09982 BIOTECHDS Full-text

ACCESSION NORDER: 1900-09902 BIOIECHES FRITT-CEAC

TITLE: Protection of mice against tetanus toxin by combination of two human monoclonal antibodies recognizing distinct epitopes

on the toxin molecule;

hybridoma generation and monoclonal antibody production Ziegler-Heitbrock H W; Reiter C; Trenkmann J; Fuetterer A;

Riethmueller G

LOCATION: Institute for Immunology, University of Munich, Goethestrasse

31, 8 Muenchen 2, Germany.

SOURCE: Hybridoma; (1986) 5, 1, 21-31

CODEN: HYBRDY

DOCUMENT TYPE: Journal LANGUAGE: English

AUTHOR:

The human lymphoblastoid B-lymphocyte cell line WI-L2-729 HF2 was fused with B-lymphocytes derived from peripheral blood or from spleens. Before fusion the mononuclear cells were thawed and stimulated for 4 days with pokeweed mitogen and tetanus toxoid (TToxoid). HF2 cells and precultured spleen cells were washed twice with serum-free medium and cells were pelleted together and fused using PRG 4000. Hybridomas were selected on medium containing hypoxanthine and azaserine. 2 Hybridomas were selected based on high binding activity using ELISA for TToxoid. Both hybridomas were cloned twice and designated TT1 and TT2 which exhibited stable production of monoclonal

antibody over several months. These 2 monoclonal antibodies bound the heavy chain portion of the B-fragment (TT1) and on the C-fragment (TT2) of the toxin. Together the 2 antibodies showed higher binding activity than either reagent alone. In an in vivo neutralization assay mice were completely protected against TToxin by the combination of the 2 antibodies while either antibody alone resulted only in a delay in the death of the mice. (15 ref)

AN 1986-09982 BIOTECHDS Full-text

CC D PHARMACEUTICALS; D5 Other Pharmaceuticals; J CELL CULTURE; J1 Animal Cell Culture

CT TETANUS TOXIN HUMAN MONOCLONAL ANTIBODY PREP., HYBRIDOMA GENERATION, DISTINCT EPITOPE DET., PROPHYLAXIS MAMMAL CELL CULTURE

L147 ANSWER 80 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1984-10843 BIOTECHDS Full-text

TITLE: Neutralization of tetanus toxin by distinct monoclonal antibodies binding to multiple

epitopes on the toxin molecule;

construction of a hybridoma secreting monoclonal antibody

AUTHOR: Volk W A; Bizzini B; Snyder R M; Bernhard E; Wagner R R

CORPORATE SOURCE: Inst.Pasteur

LOCATION: Department of Microbiology, University of Virginia,

Charlottesville, Virginia 22908, USA.

SOURCE: Infect.Immun.; (1984) 45, 3, 604-09

CODEN: INFIBR

DOCUMENT TYPE: Journal LANGUAGE: English

AB 57 Hybridomas producing monclonal antibodies to tetanus toxoid or to the I-bv or B-IIb fragment of the toxin were isolated. BALB/c mice were injected s.c. with tetanus toxoid and at monthly intervals the mice were given 3 additional boosters. Mice immunized with the B-IIb fragment of toxin were injected similarly and those immunized with the I-bc fragment were injected in each hind footpad. Booster injections were given as described for tetanus toxoid. 4 Days before the mice were killed they received an i.v. injection of antigen. Spleen cells were fused with Sp2/0 myeloma cells using polyethylene glycol. The hybrid cells were cultured and monoclonal antibodies were detected in hybridoma supernatant solutions by an ELISA. Competitive inhibition studies demonstrated that monoclonal antibodies from mice immunized with the toxoid bound to at least 20 different epitopes on the toxoid molecule. The binding of a few antibodies was studied in more detail. (23 ref)

AN 1984-10843 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals

CT TETANUS TOXOID MONOCLONAL ANTIBODY PREP., CHARACTERIZATION, HYBRIDOMA CONSTRUCTION

L147 ANSWER 81 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1984-10330 BIOTECHDS <u>Full-text</u>

TITLE: Cross-reactivity of monoclonal antibodies against Clostridium

perfringens theta toxin with streptolysin O;

hybridoma construction and monoclonal antibody preparation

AUTHOR: Sato H; Ito A; Chiba J

LOCATION: Second Department of Bacteriology, National Institute of

Health, Shinagawa-ku, Tokyo 141, Japan.

SOURCE: Curr.Microbiol.; (1984) 10, 5, 243-48

CODEN: CUMIDD

DOCUMENT TYPE: Journal LANGUAGE: English

AB A BALB/c mouse was primed with an i.p. injection of alum-precipitated Clostridium perfringens theta toxoid supplemented with pertussis toxoid.

After 7 wk, theta toxoid was given i.v. without adjuvant. 3 Days later, spleen cells were fused to SP2/0-Ag14 myeloma cells using 50% polyethylene givcol 4000. After selection of hybridoma cells in hypoxanthine, aminopterin, thymidine medium, the presence of monoclonal antibody against theta toxin in the culture fluids was tested by ELISA. Selected lines were cloned by limiting dilution, and monoclonal antibodies were prepared by injection of hybridoma cells into pristane-primed BALB/c mice for ascites fluid production. 6 Monoclonal antibodies were characterized. 4 Were non-neutralizing for theta toxin and were non-cross-reacting with streptolysin 0 (SLO). The other 2 antibodies (3H10 and 2C5) were cross-binding and cross-neutralizing with SLO. Neutralizing activity of 3H10 was higher than that of 2C5 on the basis of the binding activity with theta toxin and SLO. Both antibodies inhibited hemolysis even after binding of the toxins to sheep RBC. (21 ref)

AN 1984-10330 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture

CT CLOSTR. PERFRINGENS THETA TOXIN MONOCLONAL ANTIBODY PREP., CROSS-REACTIVITY WITH STREPTOLYSIN O, HYBRIDOMA CONSTRUCTION

L147 ANSWER 82 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN ACCESSION NUMBER: 1983-06620 BIOTECHDS Full-text

TITLE: Development aspects of immunologically characterized proteins

;

the application of hybridoma technology and monoclonal

antibody production to clinical diagnosis

AUTHOR: Falkenberg F W; Gantenberg W; Juergenliemk I; Mayer M;

Pierard D; Riffelmann H D

LOCATION: Department of Medical Microbiology and Immunology, Division

of Medicine, Ruhr-Universitaet of Bochum, 4630 Bochum,

Germany.

SOURCE: Clin.Biochem.; (1983) 16, 1, 10-16

CODEN: CLBIAS

DOCUMENT TYPE: Journal LANGUAGE: English

Hybridoma technology and the production of monoclonal antibody is discussed AB in relation to the development of clinical tests, using the example of monoclonal antibodies to human kidney tissue antigens. These antibodies were prepared as follows: immune cells were obtained from mice hyperimmunized with human kidney cortex plasma membranes. The cells were fused with NS-1 plasmacytoma cells using polyethylene glycol. Hybridomas were selected, cloned on soft agar, and used for the production of ascitic fluid. Specific monoclonal antibodies were detected by indirect immunofluorescence. 50 Monoclonal antibodies were obtained and were used for the detection of antigens in kidney related disease. Antibodies to bacteria, viruses and parasites could be very useful for rapid identification of disease causing organisms. Human tumor specific antibodies could be used to diagnose cancers and possibly in treatment. Antibodies conjugated with toxins such as cisplatinum or daunamycin have been used to specifically attack tumor cells. (27 ref)

AN 1983-06620 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals

CT MONOCLONAL ANTIBODY CLINICAL APPL., HYBRIDOMA TECHNOLOGY

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ACCESSION NUMBER: 1997:140324 SCISEARCH Full-text

THE GENUINE ARTICLE: WG542

TITLE: Immune response in ADEPT AUTHOR: Sharma S K (Reprint)

CORPORATE SOURCE: ROYAL FREE HOSP, SCH MED, CRC, CLIN RES LABS, DEPT CLIN

ONCOL, ROWLAND HILL ST, LONDON NW3 2PF, ENGLAND (Reprint)

COUNTRY OF AUTHOR: ENGLAND

SOURCE: ADVANCED DRUG DELIVERY REVIEWS, (15 DEC 1996)

Vol. 22, No. 3, pp. 369-376.

ISSN: 0169-409X.

PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM,

NETHERLANDS.

DOCUMENT TYPE: General Review; Journal

FILE SEGMENT: LIFE LANGUAGE: English REFERENCE COUNT: 55

ENTRY DATE: Entered STN: 1997

Last Updated on STN: 1997

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

ED Entered STN: 1997

Last Updated on STN: 1997

Cancer therapy using murine monoclonal <u>antibodies</u>, radiolabelled as in radioimmunotherapy or <u>conjugated</u> to bacterial <u>toxins</u> or enzymes in antibody directed enzyme prodrug therapy (ADEPT) usually leads to the production of human anti-mouse antibodies (HAMA) and human anti-toxin or human anti-enzyme antibodies in the patient. In most cases, this response interferes with the delivery of the antibody or the conjugate to the target and may also lead to adverse clinical side effects. The immune response to antibodies and enzymes may partly be avoided by use of humanised antibodies and human enzymes and immunosuppression. This chapter outlines some of the problems associated with the use of murine monoclonal antibodies conjugated to a bacterial enzyme and some of the approaches that have been studied to reduce the immunogenicity of proteins.

CC PHARMACOLOGY & PHARMACY

ST Author Keywords: ADEPT; immunogenicity; antibody-enzyme conjugate; cyclosporin

STP KeyWords Plus (R): MONOCLONAL-ANTIBODY THERAPY; FOLYETHYLENE-GLYCOL; CANCER-PATIENTS; MONOMETHOXYPOLYETHYLENE
GLYCOL; PRODRUG ACTIVATION; COLORECTAL-CANCER; MOUSE ANTIBODY;

CYCLOSPORINE-A; L-ASPARAGINASE; IMMUNOGENICITY

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L147 ANSWER 84 OF 84 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1992:307580 SCISEARCH Full-text

THE GENUINE ARTICLE: HT510
TITLE: ENHANCEMENT OF TUMOR UPTAKE OF MONOCLONAL-ANTIBODY IN

NUDE-MICE WITH PRG IL-2

AUTHOR: DENARDO G L (Reprint); DENARDO S J; LAMBORN K R;

VANHOOSEAR K A; KROGER L A

CORPORATE SOURCE: UNIV CALIF DAVIS, SACRAMENTO MED CTR, DEPT INTERNAL MED,

SACRAMENTO, CA 95817; UNIV CALIF DAVIS, SACRAMENTO MED CTR, DEPT RADIOL, SACRAMENTO, CA 95817; UNIV CALIF DAVIS, SACRAMENTO MED CTR, DEPT PATHOL, SACRAMENTO, CA 95817;

QUINTILES PACIFIC INC, PALO ALTO, CA 94303

COUNTRY OF AUTHOR: USA

SOURCE: ANTIBODY IMMUNOCONJUGATES AND RADIOPHARMACEUTICALS, (

WIN 1991) Vol. 4, No. 4, pp. 859-870.

ISSN: 0892-7049.

PUBLISHER: MARY ANN LIEBERT INC PUBL, 2 MADISON AVENUE, LARCHMONT, NY

10538.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE LANGUAGE: English

REFERENCE COUNT: 56

ENTRY DATE: Entered STN: 1994

Last Updated on STN: 1994

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

ED Entered STN: 1994

Last Updated on STN: 1994

AΒ Antibodies, both unconjugated and conjugated to toxins, have been reported to be effective treatment for some cancers and toxicity has been modest. However, the results have not been as dramatic as expected considering the unique specificity of targeting of monoclonal antibodies. This appears to be due in part to disappointingly low accumulation of antibody in the tumor relative to that administered. While interleukin 2 (IL-2) is not known to have significant, specific targeting for cancer, it's use has led to therapeutic results in a few cancers. Toxicity, primarily a vascular leakage syndrome, has severely restricted this treatment. Because the vessel walls represent a barrier to the egress of large molecules like immunoglobulins, we examined the potential of rIL-2 modified by conjugation with polyethylene glycol (PEG-IL-2) to increase tumor uptake of a monoclonal antibody, Lym-1, in nude mice implanted with Raji human lymphoma. A dose dependent enhancement of tumor concentration of antibody was observed after a single injection of PMG-IL-2. The maximum enhancement of tumor concentration of antibody by PEG-IL-2 was a factor of two-times. The interval of time between injection of P&G-IL-2 and injection of the antibody was also significant. No toxicity, but some increase in wetweight and decrease in antibody concentration in most non-tumored tissues, was observed at doses of PEG-IL-2 of 8,000-80,000 IU. These results provide evidence for the potential of relatively nontoxic doses of FEG-IL-2 to enhance the efficacy of cancer treatment with monoclonal antibodies. In addition to the impetus for similar studies in patients, these observations justify additional studies to explore the mechanisms of action of IL-2 in the nude mouse.

CC IMMUNOLOGY; RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING

STP KeyWords Plus (R): ENDOTHELIAL-CELL MONOLAYERS; ALLOWS INVIVO INDUCTION; ACTIVATED KILLER CELLS; RECOMBINANT INTERLEUKIN-2; LYMPHOCYTES-T; DIFFERENTIATION ANTIGEN; ADVANCED CANCER; THERAPY; RADIOIMMUNOTHERAPY;

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

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L15
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               PTID? OR HEXAPEPTID?
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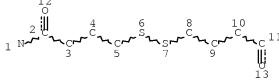
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L35
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L9
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L9
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L12
               QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES
               ))
L13
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                OUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?
L16
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| L17 | | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
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| L18 | | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY |
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| T 10 | | ?) |
| L19 L20 | | QUE ABB=ON PLU=ON PEG QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ? |
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| шуо | 032 | L17))(15A)L13 |
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| | | 322-68-3DP" |
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| L7 L8 | | QUE ABB=ON PLU=ON DE FREES, S?/AU QUE ABB=ON PLU=ON WANG, Z?/AU |
| L9 | | QUE ABB=ON PLU=ON NEOSE/CS, SO, PA |
| L11 | | QUE ABB=ON PLU=ON AB |
| L12 | | QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES |
| T 1 0 | |)) OUE ABB=ON PLU=ON TOXIN |
| L13 L14 | | QUE ABB=ON PLU=ON TOXIN QUE ABB=ON PLU=ON ?GLYCOSYL? |
| L15 | | QUE ABB=ON PLU=ON AMPLIF? |
| L16 | | QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? |
| L17 | | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
| T 10 | | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? |
| L18 | | QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN |
| | | ?) |
| L19 | | QUE ABB=ON PLU=ON PEG |
| L20 | | QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ? |
| | | |

| | | POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID? OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?)) OR (POLY(1T)(|
|------|------------|---|
| L21 | | ETHYLENEOXID? OR ETHYLENEGLYCOL?)) QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (POLY(1T)OXY(1T)ETHANEDIYL) |
| L22 | | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHANE(W)DIYL))) |
| L23 | | QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPT ID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPE PTID? OR HEXAPEPTID? |
| L24 | | QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR PENTOS? |
| L33 | | STR |
| L35 | 120 | SEA FILE=REGISTRY SSS FUL L33 |
| L104 | | QUE ABB=ON PLU=ON ANTIBODY+PFT,OLD,NEW,NT/CT |
| L105 | | QUE ABB=ON PLU=ON TOXIN+PFT,OLD,NEW,NT/CT |
| L106 | 575 | SEA FILE=EMBASE ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(15A)L13 |
| L107 | 0 | SEA FILE=EMBASE ABB=ON PLU=ON L35 |
| L108 | | SEA FILE=EMBASE ABB=ON PLU=ON L4 |
| L109 | 10201 | QUE ABB=ON PLU=ON MACROGOL+PFT, OLD, NEW, NT/CT |
| L110 | 0 | SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L107 |
| L111 | | SEA FILE=EMBASE ABB=ON PLU=ON L106 AND ((L108 OR L109) OR |
| | _ | (L18 OR L19 OR L20 OR L21 OR L22) OR L5) |
| L112 | 308 | SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L104 AND L105 |
| L114 | | QUE ABB=ON PLU=ON CONJUGATE+PFT,OLD,NEW,NT/CT |
| L115 | 8 | SEA FILE=EMBASE ABB=ON PLU=ON L112 AND L114 |
| L116 | 11 | SEA FILE=EMBASE ABB=ON PLU=ON (L110 OR L111) OR L115 |
| L117 | 11 | SEA FILE=EMBASE ABB=ON PLU=ON L116 AND (L11 OR L12 OR L13 OR |
| | | L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24) |
| L118 | 11 | SEA FILE=EMBASE ABB=ON PLU=ON (L116 OR L117) |
| L119 | | SEA FILE=EMBASE ABB=ON PLU=ON L118 AND (L6 OR L7 OR L8 OR L9) |
| => d | his 1130 | |
| -> u | 1115 1150 | |
| | (FILE 'BIO | SIS, CABA, BIOTECHNO, DRUGU, VETU' ENTERED AT 10:05:22 ON 30 |
| | APR 2008) | |
| L130 | 1 | S L129 AND L6-L9 |
| => d | que 1130 | |
| L4 | - | SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN |
| L5 | | QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25 |
| | | 322-68-3DP" |
| L6 | | QUE ABB=ON PLU=ON DEFREES, S?/AU |
| L7 | | QUE ABB=ON PLU=ON DE FREES, S?/AU |
| L8 | | QUE ABB=ON PLU=ON WANG, Z?/AU |
| L9 | | QUE ABB=ON PLU=ON NEOSE/CS, SO, PA |
| L11 | | QUE ABB=ON PLU=ON AB |
| L12 | | QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES |
| | |)) |
| L13 | | QUE ABB=ON PLU=ON TOXIN |
| L16 | | QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? |
| L17 | | QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? |
| | | OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE? |
| L18 | | QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY |

```
LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN
               ?)
L19
               OUE ABB=ON PLU=ON PEG
               QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?
L20
               POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID?
               OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?
               )) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(
               ETHYLENEOXID? OR ETHYLENEGLYCOL?))
               QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (
L21
               POLY(1T)OXY(1T)ETHANEDIYL)
L22
               QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA
               NE(W)DIYL)))
L33
               STR
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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

| L35 | 120 | SEA FILE=REGISTRY SSS FUL L33 |
|------|-------|---|
| L122 | 1348 | SEA ((L11 OR L12) (5A) (L16 OR L17))(15A) L13 |
| L123 | 1 | SEA L35 |
| L124 | 0 | SEA L122 AND L123 |
| L125 | 18194 | SEA L4 |
| L126 | 10 | SEA L122 AND (L125 OR L5 OR (L18 OR L19 OR L20 OR L21 OR L22)) |
| | | |
| L127 | 393 | SEA L122 AND (L11/IT, TI, CC, CT, ST, STP OR L12/IT, TI, CC, CT, ST, STP) |
| | | AND L13/IT, TI, CC, CT, ST, STP AND (L16/IT, TI, CC, CT, ST, STP OR |
| | | L17/IT, TI, CC, CT, ST, STP) |
| L128 | 171 | SEA L127 AND L16/IT,TI,CC,CT,ST,STP |
| L129 | 181 | SEA L124 OR L126 OR L128 |
| L130 | 1 | SEA L129 AND (L6 OR L7 OR L8 OR L9) |
| | | |

=> d his 1144

(FILE 'PASCAL, CEABA-VTB, BIOENG, BIOTECHDS, LIFESCI, DRUGB, VETB, SCISEARCH, CONFSCI, DISSABS' ENTERED AT 10:12:45 ON 30 APR 2008)
L144 0 S L143 AND L6-L9

=> d que 1144

| L6 | QUE | ABB=ON | PLU=ON | DEFREES, S?/AU |
|-----|-----|--------|--------|------------------|
| L7 | QUE | ABB=ON | PLU=ON | DE FREES, S?/AU |
| L8 | QUE | ABB=ON | PLU=ON | WANG, Z?/AU |
| L9 | QUE | ABB=ON | PLU=ON | NEOSE/CS, SO, PA |
| L11 | OUE | ABB=ON | PLU=ON | AB |

```
L12
               QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES
               ))
L13
               OUE ABB=ON PLU=ON TOXIN
L14
               QUE ABB=ON PLU=ON ?GLYCOSYL?
               QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?
L16
               QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?
L17
                OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?
               QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY
L18
               LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN
L19
               QUE ABB=ON PLU=ON PEG
               OUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?
L20
               POLYETHYLENEOXID? OR MACROGOL OR (POLY(W) (ETHYLENEOXID?
               OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?
               )) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(
               ETHYLENEOXID? OR ETHYLENEGLYCOL?))
L21
               QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (
               POLY(1T)OXY(1T)ETHANEDIYL)
               QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA
L22
               NE(W)DIYL)))
L24
               QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC
               HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR
          1710 SEA ((L11 OR L12) (5A) (L16 OR L17))(15A) L13
L137
            28 SEA L137 AND (L18 OR L19 OR L20 OR L21 OR L22)
L138
L139
            67 SEA L137 AND (DISULF? OR DISULPH? OR ((SULFUR OR SULPHUR)(2W)(S
               ULFUR OR SULPHUR)) OR (S(1W) S))
L140
            81 SEA L137 AND (L14 OR L24)
            0 SEA L138 AND L139
L141
L142
             4 SEA L138 AND L140
           28 SEA L138 OR L141 OR L142
L143
            0 SEA L143 AND (L6 OR L7 OR L8 OR L9)
L144
=> dup rem 151 162 186 1101 1119 1130 1144
L101 HAS NO ANSWERS
L119 HAS NO ANSWERS
L144 HAS NO ANSWERS
FILE 'HCAPLUS' ENTERED AT 10:35:54 ON 30 APR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE 'USPATFULL' ENTERED AT 10:35:54 ON 30 APR 2008
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FILE 'WPIX' ENTERED AT 10:35:54 ON 30 APR 2008
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FILE 'BIOSIS' ENTERED AT 10:35:54 ON 30 APR 2008
Copyright (c) 2008 The Thomson Corporation
PROCESSING COMPLETED FOR L51
PROCESSING COMPLETED FOR L62
PROCESSING COMPLETED FOR L86
PROCESSING COMPLETED FOR L101
PROCESSING COMPLETED FOR L119
PROCESSING COMPLETED FOR L130
PROCESSING COMPLETED FOR L144
             3 DUP REM L51 L62 L86 L101 L119 L130 L144 (1 DUPLICATE REMOVED)
L148
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ANSWER '1' FROM FILE HCAPLUS

ANSWER '2' FROM FILE USPATFULL ANSWER '3' FROM FILE BIOSIS

=> file stnguide FILE 'STNGUIDE' ENTERED AT 10:36:08 ON 30 APR 2008 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 25, 2008 (20080425/UP).

=> d ibib ed abs hitind hitstr YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, BIOSIS' - CONTINUE? (Y)/N:y

L148 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:121065 HCAPLUS Full-text

DOCUMENT NUMBER: 142:204915

TITLE: Antibody-toxin conjugates

INVENTOR(S): Defrees, Shawn; Wang, Zhi-Guang

PATENT ASSIGNEE(S): Neose Technologies, Inc., USA

SOURCE: PCT Int. Appl., 126 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA' | TENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | D. | ATE | |
|---------|-------|------|------|-----|-----|-----|------|------|-----|------|------|----------|-----|-----|-----|------|-------|
| | 2005 | | | | A2 | | | 0210 | , | WO 2 | 004- | US24 | 042 | | 2 | 0040 | 726 |
| WO | 2005 | 0124 | 84 | | А3 | | 2007 | 0524 | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | ΑM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | ВG, | BR, | BW, | BY, | BΖ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MΖ, | NA, | NI, |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW |
| | RW: | BW, | GH, | GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, |
| | | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | ΙE, | ΙT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, |
| | | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, |
| | | SN, | TD, | ΤG, | AP, | EA, | EP, | OA | | | | | | | | | |
| US | 2007 | 0059 | 275 | | A1 | | 2007 | 0315 | | US 2 | 006- | 5653 | 31 | | 2 | 0060 | 911 < |
| PRIORIT | Y APP | LN. | INFO | .: | | | | | | US 2 | 003- | 4901 | 68P | | P 2 | 0030 | 725 |
| | | | | | | | | | | US 2 | 003- | 4994 | 48P | | P 2 | 0030 | 902 |
| | | | | | | | | | , | WO 2 | 004- | US24 | 042 | , | W 2 | 0040 | 726 |
| | | ~ | - | | | ۰. | | | | | | | | | | | |

- ED Entered STN: 11 Feb 2005
- AΒ In response to the need for improved site-specific delivery of toxins to the loci of disease, the present invention provides antibodies that are modified with toxins. The invention provides a unique class of conjugates in which the toxin is attached to the antibody through a glycosyl linking group, e.g., an intact glycosyl linking group, which is attached to the paptide (or to an acceptor moiety attached to the paptide, e.g. a spacer or amplifier) utilizing an enzymically-mediated coupling reaction. Thus, in a first aspect, the present invention provides a paptide conjugate in which the sugar- toxin construct (modified sugar) is attached to a peptide. For example, the invention provides a peptide conjugate having the formula: Ab-G-L-T wherein Ab is an antibody, or other targeting moiety; G is a glycosyl linking group, e.g., an intact glycosyl linking group, covalently joining Ab to L; L is a bond or a spacer moiety covalently joining G to T; and T is a toxin, or other therapeutic agent. In a second aspect, the invention provides a compound having the formula: S-L-T wherein S is a nucleotide sugar; L is a bond or a spacer moiety covalently joining S to T; and T is a towns moiety.
- IC ICM C12N
- CC 63-8 (Pharmaceuticals)
 - Section cross-reference(s): 15
- ST antibody toxin sugar conjugate

```
drug delivery system cancer
ΤТ
     Antibodies and Immunoglobulins
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (conjugates with toxins; therapeutic
        antibody-toxin conjugates involving a
        glycosyl linking group)
ΙT
     Toxins
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (cytotoxins, conjugates with sugars and
        antibodies; therapeutic antibody-toxin
        conjugates involving a glycosyl linking
        group)
ΙT
     Drug delivery systems
        (immunotoxins; therapeutic antibody-toxin
        conjugates involving a glycosyl linking
        group)
ΙT
    Carbohydrates, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (nucleotide sugar-toxin conjugates;
        therapeutic antibody-toxin conjugates
        involving a glycosyl linking group)
     Antitumor agents
ΤТ
     Neoplasm
        (therapeutic antibody-toxin conjugates
        involving a glycosyl linking group)
     Polyoxyalkylenes, biological studies
ΤТ
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (therapeutic antibody-toxin conjugates
        involving a glycosyl linking group)
ΙT
     25322-68-3, PEG
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (linker; therapeutic antibody-toxin
        conjugates involving a glycosyl linking
        group)
     25322-68-3, PEG
TT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (linker; therapeutic antibody-toxin
        conjugates involving a glycosyl linking
        group)
     25322-68-3 HCAPLUS
RN
CN
     Poly(oxy-1,2-ethanediyl), \alpha-hydro-\omega-hydroxy- (CA INDEX NAME)
HO CH2 CH2 O n
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=> d ibib ab hitstr 2 YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, BIOSIS' - CONTINUE? (Y)/N:y

L148 ANSWER 2 OF 3 USPATFULL on STN ACCESSION NUMBER: 2007:68032 USPATFULL Full-text

TITLE:

INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED

STATES

Wang, Zhi-Guang, Dresher, PA, UNITED STATES

| | NUMBER | KIND | DATE | |
|---------------------|-----------------|------|----------|--------------|
| PATENT INFORMATION: | US 2007059275 | A1 | 20070315 | |
| PAIENI INFORMATION: | 05 200/0392/3 | AI | 20070313 | |
| APPLICATION INFO.: | US 2004-565331 | A1 | 20040726 | (10) |
| | WO 2004-US24042 | | 20040726 | |
| | | | 20060911 | PCT 371 date |

NUMBER DATE

PRIORITY INFORMATION: US 2003-490168P 20030725 (60)

US 2003-499448P 20030902 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP (SF), 2 PALO ALTO SQUARE,

3000 El Camino Real, Suite 700, PALO ALTO, CA, 94306,

US

NUMBER OF CLAIMS: 25 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 35 Drawing Page(s)

LINE COUNT: 3536

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides conjugates formed between toxins and sugars and toxins and peptides, such as antibodies. In an exemplary embodiment, a

toxin-sugar construct is conjugated to an antibody through an intact

glycosyl linking group.

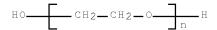
IT 25322-68-3, PEG

(linker; therapeutic antibody-toxin

conjugates involving a glycosyl linking group)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediy1), α -hydro- ω -hydroxy- (CA INDEX NAME)



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L148 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:185708 BIOSIS Full-text

DOCUMENT NUMBER: PREV200200185708

TITLE: Improved binding of a bivalent single-chain

immunotoxin results in increased efficacy for in vivo

T-cell depletion.

AUTHOR(S): Thompson, Jerry; Stavrou, Scott; Weetall, Marla; Hexham, J.

Mark; Digan, Mary Ellen; <u>Wang</u>, <u>Zhuri</u>; Woo, Jung Hee; Yu, Yongjun; Mathias, Askale; Liu, Yuan Yi; Ma, Shenglin; Gordienko, Irina; Lake, Philip; Neville, David

M., Jr. [Reprint author]

CORPORATE SOURCE: Section on Biophysical Chemistry, Laboratory of Molecular

Biology, National Institute of Mental Health, Bethesda, MD,

28092-4034, USA davidn@helix.nih.gov

SOURCE: Protein Engineering, (December, 2001) Vol. 14, No. 12, pp.

1035-1041. print.

CODEN: PRENE9. ISSN: 0269-2139.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 6 Mar 2002

Last Updated on STN: 6 Mar 2002

ED Entered STN: 6 Mar 2002

Last Updated on STN: 6 Mar 2002

Anti-CD3 immunotoxins exhibit considerable promise for the induction of AB transplantation tolerance in pre-clinical large animal models. Recently an anti-human anti-CD3epsilon single-chain immunotoxin based on truncated diphtheria toxin has been described that can be expressed in CHO cells that have been mutated to diphtheria toxin resistance. After the two toxin glycosylation sites were removed, the bioactivity of the expressed immunotoxin was nearly equal to that of the chemically conjugated immunotoxin. This immunotoxin, A-dmDT390-sFv, contains diphtheria toxin to residue 390 at the Nterminus followed by VL and VH domains of antibody UCHT1 linked by a (G4S)3 spacer (sFv). Surprisingly, we now report that this immunotoxin is severely compromised in its binding affinity toward CD3+ cells as compared with the intact parental UCHT1 antibody, the UCHT1 Fab fragment or the engineered UCHT1 sFv domain alone. Binding was increased 7-fold by adding an additional identical sFv domain to the immunotoxin generating a divalent construct, AdmDT390-bisFv (G4S). In vitro potency increased 10-fold over the chemically conjugated immunotoxin, UCHT1-CRM9 and the monovalent A-dmDT390-sFv. The in vivo potency of the genetically engineered immunotoxins was assayed in the transgenic heterozygote mouse, tgepsilon 600, in which the T-cells express human CD3epsilon as well as murine CD3epsilon. T-cell depletion in the spleen and lymph node observed with the divalent construct was increased 9- and 34fold, respectively, compared with the monovalent construct. The additional sFv domain appears partially to compensate for steric hindrance of immunotoxin binding due to the large N-terminal toxin domain.

CC Cytology - Animal 02506

Biochemistry studies - General 10060
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Toxicology - General and methods 22501
Immunology - General and methods 34502

IT Major Concepts

Biochemistry and Molecular Biophysics; Immune System (Chemical Coordination and Homeostasis); Toxicology

IT Parts, Structures, & Systems of Organisms

CD3-positive cell: blood and lymphatics, immune system; T cell: blood and lymphatics, immune system, in vivo depletion; lymph node: blood and lymphatics, immune system; spleen: blood and lymphatics, immune system

IT Chemicals & Biochemicals

(G-4-S)-3 spacer; A-dmDT390-sFV: monovalent; <u>UCHT1: antibody</u>; <u>UCHT1-CRM9: conjugated-immunotoxin</u>; anti-human anti-CD3-epsilon single-chain immunotoxin; immunotoxin: bivalent, single-chain; toxin glycosylation site

IT Miscellaneous Descriptors

diphtheria toxin resistance

ORGN Classifier

Cricetidae 86310

Super Taxa

Rodentia; Mammalia; Vertebrata; Chordata; Animalia Organism Name CHO cell line Taxa Notes Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates ORGN Classifier Muridae 86375 Super Taxa Rodentia; Mammalia; Vertebrata; Chordata; Animalia Organism Name mouse: heterozygote, tg-epsilon 600, transgenic Taxa Notes Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates => file stnguide FILE 'STNGUIDE' ENTERED AT 10:37:03 ON 30 APR 2008 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS) FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Apr 25, 2008 (20080425/UP).

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(FILE 'HOME' ENTERED AT 08:34:49 ON 30 APR 2008)

FILE 'STNGUIDE' ENTERED AT 08:34:52 ON 30 APR 2008

FILE 'ZCAPLUS' ENTERED AT 08:35:17 ON 30 APR 2008 E US2006-565331/APPS

FILE 'HCAPLUS' ENTERED AT 08:35:34 ON 30 APR 2008 1 SEA ABB=ON PLU=ON US2006-565331/APPS L1D SCAN

FILE 'WPIX' ENTERED AT 08:35:53 ON 30 APR 2008 L2 2 SEA ABB=ON PLU=ON US2006-565331/APPS D TRI 1-2 L3 1 SEA ABB=ON PLU=ON L2 NOT PRINTER/TI

FILE 'STNGUIDE' ENTERED AT 08:36:49 ON 30 APR 2008 D QUE L1

FILE 'HCAPLUS' ENTERED AT 08:37:07 ON 30 APR 2008 D IBIB ED ABS IND L1

FILE 'STNGUIDE' ENTERED AT 08:37:07 ON 30 APR 2008 D OUE L3

FILE 'WPIX' ENTERED AT 08:37:31 ON 30 APR 2008 D IALL CODE L3

FILE 'STNGUIDE' ENTERED AT 08:37:32 ON 30 APR 2008

FILE 'REGISTRY' ENTERED AT 08:43:07 ON 30 APR 2008 1 SEA ABB=ON PLU=ON 25322-68-3/RN L4D SCAN

FILE 'ZCAPLUS' ENTERED AT 08:43:30 ON 30 APR 2008

QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25322-68-L53DP" QUE ABB=ON PLU=ON DEFREES, S?/AU L6 L7 QUE ABB=ON PLU=ON DE FREES, S?/AU L8 QUE ABB=ON PLU=ON WANG, Z?/AU L9 OUE ABB=ON PLU=ON NEOSE/CS, SO, PA QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY<2004 L10 OR REVIEW/DT L11 QUE ABB=ON PLU=ON AB L12 QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES)) L13 QUE ABB=ON PLU=ON TOXIN L14OUE ABB=ON PLU=ON ?GLYCOSYL? L15 OUE ABB=ON PLU=ON AMPLIF? L16 QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG? QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK? OR L17 BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?

L18 QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKYLEN?)

OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN?)

L19 QUE ABB=ON PLU=ON PEG

OUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR L20 ?POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID? OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?)) OR

| | (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(ETHYLENEOXID |
|---|--|
| L21 | ? OR ETHYLENEGLYCOL?)) QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR |
| 1121 | (POLY(1T)OXY(1T)ETHANEDIYL) |
| L22 | QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHANE(W)DI |
| 1122 | YL))) |
| L23 | QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR |
| 120 | DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPEPTID? OR |
| | HEXAPEPTID? |
| L24 | QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACCHARID? |
| | OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR PENTOS? |
| L25 | QUE ABB=ON PLU=ON "ANTIBODIES AND IMMUNOGLOBULINS"+PFT,OLD,NE |
| | W,NT/CT |
| L26 | QUE ABB=ON PLU=ON TOXINS+PFT,OLD,NEW,NT/CT |
| L27 | QUE ABB=ON PLU=ON POLYOXYALKYLENES+PFT,OLD,NEW,NT/CT |
| L28 | QUE ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,OLD,NEW,NT/CT |
| L29 | QUE ABB=ON PLU=ON A61K0039-395/IPC |
| L30 | QUE ABB=ON PLU=ON A61K0039-44/IPC |
| L31 | QUE ABB=ON PLU=ON C07K0016-46/IPC |
| L32 | QUE ABB=ON PLU=ON C07K0017-08/IPC |
| | |
| | FILE 'LREGISTRY' ENTERED AT 08:59:54 ON 30 APR 2008 |
| L33 | STR |
| | |
| | FILE 'REGISTRY' ENTERED AT 09:01:35 ON 30 APR 2008 |
| L34 | 10 SEA SSS SAM L33 |
| | |
| | FILE 'STNGUIDE' ENTERED AT 09:02:24 ON 30 APR 2008 |
| | D QUE STAT |
| | |
| | ELLE IDECLETRY! ENTERED AT 00.04.25 ON 20 ADD 2000 |
| T 3 5 | FILE 'REGISTRY' ENTERED AT 09:04:35 ON 30 APR 2008 |
| L35 | 120 SEA SSS FUL L33 |
| L35 | |
| L35 | 120 SEA SSS FUL L33 SAVE TEMP L35 HUY331PSET1/A |
| L35 | 120 SEA SSS FUL L33 |
| L35 | 120 SEA SSS FUL L33 SAVE TEMP L35 HUY331PSET1/A FILE 'STNGUIDE' ENTERED AT 09:05:03 ON 30 APR 2008 |
| L35 | 120 SEA SSS FUL L33 SAVE TEMP L35 HUY331PSET1/A |
| | 120 SEA SSS FUL L33 SAVE TEMP L35 HUY331PSET1/A FILE 'STNGUIDE' ENTERED AT 09:05:03 ON 30 APR 2008 FILE 'HCAPLUS' ENTERED AT 09:07:37 ON 30 APR 2008 |
| L36 | 120 SEA SSS FUL L33 SAVE TEMP L35 HUY331PSET1/A FILE 'STNGUIDE' ENTERED AT 09:05:03 ON 30 APR 2008 FILE 'HCAPLUS' ENTERED AT 09:07:37 ON 30 APR 2008 501 SEA ABB=ON PLU=ON L25 (L)((L16 OR L17)(L)L13) |
| L36 | 120 SEA SSS FUL L33 |
| L36 L37 | 120 SEA SSS FUL L33 |
| L36 L37 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L42 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L42 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 L45 L46 L47 | 120 SEA SSS FUL L33 |
| L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 | 120 SEA SSS FUL L33 |

L53 35 SEA ABB=ON PLU=ON L52 AND L10 SAVE TEMP L53 HUY331HCAB/A FILE 'STNGUIDE' ENTERED AT 09:16:05 ON 30 APR 2008 FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 09:18:02 ON 30 APR 2008 L54 19 SEA ABB=ON PLU=ON L35 L55 29534 SEA ABB=ON PLU=ON L4 549 SEA ABB=ON PLU=ON (L54 OR L55) AND (L29 OR L30 OR L31 OR L56 L32) O SEA ABB=ON PLU=ON L56 AND L54 L57 549 SEA ABB=ON PLU=ON (L56 OR L57) 425 SEA ABB=ON PLU=ON L58 AND (L11/IT,TI,CC,CT,ST,STP OR L58 L59 L12/IT, TI, CC, CT, ST, STP) 58 SEA ABB=ON PLU=ON L59 AND L13/IT, TI, CC, CT, ST, STP L60 L61 37 SEA ABB=ON PLU=ON L60 AND L16/IT, TI, CC, CT, ST, STP L62 1 SEA ABB=ON PLU=ON L61 AND (L6 OR L7 OR L8 OR L9) 36 SEA ABB=ON PLU=ON L61 NOT L62 L63 28 SEA ABB=ON PLU=ON L63 AND L10
21 SEA ABB=ON PLU=ON L64 AND (L14/IT,TI,CC,CT,ST,STP,BI,AB OR L64 L65 L24/IT, TI, CC, CT, ST, STP, BI, AB) 2 SEA ABB=ON PLU=ON L65 AND (L30 OR L32) L66 D SCAN 9486 SEA ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR L17))(10A) L13 L67 11 SEA ABB=ON PLU=ON L65 AND L67 L68 FILE 'STNGUIDE' ENTERED AT 09:23:00 ON 30 APR 2008 FILE 'STNGUIDE' ENTERED AT 09:40:38 ON 30 APR 2008 FILE 'WPIX' ENTERED AT 09:40:53 ON 30 APR 2008 1 SEA ABB=ON PLU=ON RA00C8/SDCN L69 D TRI L70 QUE ABB=ON PLU=ON RA00C8/DCN OR 184587/DCR, DCRE, KW L71 QUE ABB=ON PLU=ON (R00351 OR P8004)/PLE QUE ABB=ON PLU=ON "L8"/M0, M1, M2, M3, M4, M5, M6 L72 FILE 'STNGUIDE' ENTERED AT 09:42:39 ON 30 APR 2008 FILE 'WPIX' ENTERED AT 09:43:16 ON 30 APR 2008 QUE ABB=ON PLU=ON K224/M0, M1, M2, M3, M4, M5, M6 L73 660 SEA ABB=ON PLU=ON L70 AND L71 L74 214 SEA ABB=ON PLU=ON L74 AND L72 L75 L76 40 SEA ABB=ON PLU=ON L75 AND L73 12 SEA ABB=ON PLU=ON L76 AND (L29 OR L30 OR L31 OR L32) L77 O SEA ABB=ON PLU=ON ((L11 OR L12) (5A)L16-LL17/BIX,BIEX,ABEX,TT L78)(20A)L13 852 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(20A)L13 L79 L80 1471 SEA ABB=ON PLU=ON (((L11 OR L12) (5A)(L16 OR L17))(20A)L23)(L)L13 L81 12 SEA ABB=ON PLU=ON L76 AND (L77 OR (L79 OR L80)) L82 1 SEA ABB=ON PLU=ON L76 AND (L79 OR L80) 12 SEA ABB=ON PLU=ON (L81 OR L82)
12 SEA ABB=ON PLU=ON L83 AND (L11 OR L12 OR L13 OR L14 OR L15 L83 L84 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24) 12 SEA ABB=ON PLU=ON (L83 OR L84) L85 1 SEA ABB=ON PLU=ON L85 AND (L6 OR L7 OR L8 OR L9) L86 11 SEA ABB=ON PLU=ON L85 NOT L86 L87 10 SEA ABB=ON PLU=ON L87 AND L10 L88

D TRI 5-10 D KWIC 9-10

FILE 'STNGUIDE' ENTERED AT 09:50:41 ON 30 APR 2008

```
FILE 'MEDLINE' ENTERED AT 09:51:14 ON 30 APR 2008
               E ANTIBODIES/CT
L89
               QUE ABB=ON PLU=ON ANTIBODIES+PFT, OLD, NEW, NT/CT
               E TOXINS/CT
L*** DEL
             0 S (11-L12 (5A)L16-L17)(15A)L13
            652 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(15A)L13
L90
                D TRI 1-3
               D TRI 20-24
T.91
               QUE ABB=ON PLU=ON "TOXINS, BIOLOGICAL"+PFT,OLD,NEW,NT/CT
               D HIS30
L92
             18 SEA ABB=ON PLU=ON L4
               E POLYETHYLENE GLYCOLS/CT
               QUE ABB=ON PLU=ON "POLYETHYLENE GLYCOLS"+PFT,OLD,NEW,NT/CT
L93
              0 SEA ABB=ON PLU=ON L35
L94
              4 SEA ABB=ON PLU=ON L90 AND ((L92 OR L93) OR L5 OR (L19 OR L20
L95
               OR L21 OR L22))
L96
           261 SEA ABB=ON PLU=ON L90 AND L89 AND L91
L97
              O SEA ABB=ON PLU=ON L96 AND (L92 OR L93 OR L94 OR (L18 OR L19
               OR L20 OR L21 OR L22))
               E BIOCONJUGATE/CT
               E POLYMERS/CT
               QUE ABB=ON PLU=ON POLYMERS+PFT,OLD,NEW,NT/CT
L98
L99
              5 SEA ABB=ON PLU=ON L96 AND L98
             9 SEA ABB=ON PLU=ON L95 OR L97 OR L99
L100
               D OUE
T.101
             O SEA ABB=ON PLU=ON L100 AND (L6 OR L7 OR L8 OR L9)
             9 SEA ABB=ON PLU=ON L100 NOT L101
L102
             7 SEA ABB=ON PLU=ON L102 AND L10
L103
                D TRI 1-7
     FILE 'STNGUIDE' ENTERED AT 09:59:20 ON 30 APR 2008
     FILE 'EMBASE' ENTERED AT 09:59:25 ON 30 APR 2008
               E ANTIBODIES/CT
               E E123+ALL
L104
               QUE ABB=ON PLU=ON ANTIBODY+PFT,OLD,NEW,NT/CT
               E TOXIN/CT
L105
               OUE ABB=ON PLU=ON TOXIN+PFT,OLD,NEW,NT/CT
L106
            575 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(15A)L13
             0 SEA ABB=ON PLU=ON L35
L107
          15267 SEA ABB=ON PLU=ON L4
L108
               QUE ABB=ON PLU=ON MACROGOL+PFT,OLD,NEW,NT/CT
L109
L110
              0 SEA ABB=ON PLU=ON L106 AND L107
L111
              3 SEA ABB=ON PLU=ON L106 AND ((L108 OR L109) OR (L18 OR L19 OR
               L20 OR L21 OR L22) OR L5)
L112
            308 SEA ABB=ON PLU=ON L106 AND L104 AND L105
L113
            130 SEA ABB=ON PLU=ON L112 AND ((CONJUG?/IT,TI,CC,CT,ST,STP OR
               BIOCONJUG?/IT,TI,CC,CT,ST,STP) OR (ATTACH?/IT,TI,CC,CT,ST,STP
```

OR TETHER?/IT,TI,CC,CT,ST,STP OR BIND?/IT,TI,CC,CT,ST,STP OR LINK?/IT,TI,CC,CT,ST,STP OR BOND?/IT,TI,CC,CT,ST,STP OR

CONJUGAT?/IT,TI,CC,CT,ST,STP OR COMPLEX?/IT,TI,CC,CT,ST,STP OR

E CONJUGATE
E CONJUGATE/CT

D TRI 1-5

COORDINATE?/IT, TI, CC, CT, ST, STP))

```
E E161+ALL
L114
               QUE ABB=ON PLU=ON CONJUGATE+PFT, OLD, NEW, NT/CT
L115
             8 SEA ABB=ON PLU=ON L112 AND L114
L116
            11 SEA ABB=ON PLU=ON (L110 OR L111) OR L115
             11 SEA ABB=ON PLU=ON L116 AND (L11 OR L12 OR L13 OR L14 OR L15
L117
                OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR
               L24)
             11 SEA ABB=ON PLU=ON (L116 OR L117)
L118
             O SEA ABB=ON PLU=ON L118 AND (L6 OR L7 OR L8 OR L9)
L119
             11 SEA ABB=ON PLU=ON L118 NOT L119
L120
L121
             10 SEA ABB=ON PLU=ON L120 AND L10
                D TRI 9-10
     FILE 'STNGUIDE' ENTERED AT 10:04:31 ON 30 APR 2008
     FILE 'BIOSIS, CABA, BIOTECHNO, DRUGU, VETU' ENTERED AT 10:05:22 ON 30 APR
     2008
           1348 SEA ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR L17))(15A) L13
L122
             1 SEA ABB=ON PLU=ON L35
L123
             0 SEA ABB=ON PLU=ON L122 AND L123
L124
L125
          18194 SEA ABB=ON PLU=ON L4
            10 SEA ABB=ON PLU=ON L122 AND (L125 OR L5 OR (L18 OR L19 OR L20
L126
                OR L21 OR L22))
            393 SEA ABB=ON PLU=ON L122 AND (L11/IT, TI, CC, CT, ST, STP OR
L127
                L12/IT, TI, CC, CT, ST, STP) AND L13/IT, TI, CC, CT, ST, STP AND
                (L16/IT, TI, CC, CT, ST, STP OR L17/IT, TI, CC, CT, ST, STP)
            171 SEA ABB=ON PLU=ON L127 AND L16/IT,TI,CC,CT,ST,STP
L128
L129
            181 SEA ABB=ON PLU=ON L124 OR L126 OR L128
L130
             1 SEA ABB=ON PLU=ON L129 AND (L6 OR L7 OR L8 OR L9)
L131
            180 SEA ABB=ON PLU=ON L129 NOT L130
            161 SEA ABB=ON PLU=ON L131 AND L10
L132
              4 SEA ABB=ON PLU=ON L132 AND (L14 OR L24)
L133
                D SCAN
     FILE 'STNGUIDE' ENTERED AT 10:10:08 ON 30 APR 2008
     FILE 'JAPIO' ENTERED AT 10:10:38 ON 30 APR 2008
            13 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(15A)L13
L134
             9 SEA ABB=ON PLU=ON L134 AND (L29 OR L30 OR L31 OR L32)
L135
              1 SEA ABB=ON PLU=ON L135 AND (L18 OR L19 OR L20 OR L21 OR L22)
L136
                D SCAN
                D BIB KWIC
     FILE 'STNGUIDE' ENTERED AT 10:12:21 ON 30 APR 2008
     FILE 'PASCAL, CEABA-VTB, BIOENG, BIOTECHDS, LIFESCI, DRUGB, VETB,
     SCISEARCH, CONFSCI, DISSABS' ENTERED AT 10:12:45 ON 30 APR 2008
L137
          1710 SEA ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR L17))(15A) L13
L138
            28 SEA ABB=ON PLU=ON L137 AND (L18 OR L19 OR L20 OR L21 OR L22)
L139
             67 SEA ABB=ON PLU=ON L137 AND (DISULF? OR DISULPH? OR ((SULFUR
                OR SULPHUR) (2W) (SULFUR OR SULPHUR)) OR (S(1W) S))
             81 SEA ABB=ON PLU=ON L137 AND (L14 OR L24)
0 SEA ABB=ON PLU=ON L138 AND L139
L140
L141
L142
             4 SEA ABB=ON PLU=ON L138 AND L140
            28 SEA ABB=ON PLU=ON L138 OR L141 OR L142
L143
             O SEA ABB=ON PLU=ON L143 AND (L6 OR L7 OR L8 OR L9)
L144
           28 SEA ABB=ON PLU=ON L143 NOT L144
L145
```

15 SEA ABB=ON PLU=ON L145 AND L10

L146

FILE 'STNGUIDE' ENTERED AT 10:22:46 ON 30 APR 2008
D QUE L4

FILE 'REGISTRY' ENTERED AT 10:23:27 ON 30 APR 2008 D IDE L4

FILE 'STNGUIDE' ENTERED AT 10:23:29 ON 30 APR 2008

D QUE STAT L35

D QUE NOS L53

D QUE NOS L68

D QUE L88

D OUE NOS L103

D OUE NOS L121

D QUE NOS L133

D QUE L136

D QUE L146

FILE 'HCAPLUS, USPATFULL, USPAT2, WPIX, MEDLINE, EMBASE, BIOSIS, BIOTECHNO, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:26:03 ON 30 APR 2008

L147 84 DUP REM L53 L68 L88 L103 L121 L133 L136 L146 (9 DUPLICATES RE

ANSWERS '1-35' FROM FILE HCAPLUS

ANSWERS '36-44' FROM FILE USPATFULL

ANSWERS '45-54' FROM FILE WPIX

ANSWERS '55-60' FROM FILE MEDLINE

ANSWERS '61-67' FROM FILE EMBASE

ANSWERS '68-69' FROM FILE BIOSIS

ANSWER '70' FROM FILE JAPIO

ANSWER '71' FROM FILE BIOENG

ANSWERS '72-82' FROM FILE BIOTECHDS

ANSWERS '83-84' FROM FILE SCISEARCH

SAVE TEMP L147 HUY331MAIN/A

FILE 'STNGUIDE' ENTERED AT 10:26:22 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:27:00 ON 30 APR 2008

D IBIB ED ABS HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 10:27:01 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:27:12 ON 30 APR 2008

D IBIB ED ABS HITIND HITSTR 2-35

FILE 'STNGUIDE' ENTERED AT 10:27:49 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:31:41 ON 30 APR 2008

D IBIB AB HITSTR 36-44

FILE 'STNGUIDE' ENTERED AT 10:31:50 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:32:18 ON 30 APR 2008

D IALL ABEQ TECH ABEX FRAGHITSTR 45-54

FILE 'STNGUIDE' ENTERED AT 10:32:30 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:34:02 ON 30 APR 2008

D IBIB ED AB IND 55-84

FILE 'STNGUIDE' ENTERED AT 10:34:06 ON 30 APR 2008

D QUE NOS L51

D QUE NOS L62

D QUE L86

D QUE NOS L101

D QUE NOS L119

D QUE L130

D OUE L144

FILE 'HCAPLUS, USPATFULL, WPIX, BIOSIS' ENTERED AT 10:35:54 ON 30 APR 2008 L148 3 DUP REM L51 L62 L86 L101 L119 L130 L144 (1 DUPLICATE REMOVED)

ANSWER '1' FROM FILE HCAPLUS

ANSWER '2' FROM FILE USPATFULL

ANSWER '3' FROM FILE BIOSIS

SAVE TEMP L148 HUY331INV/A

FILE 'STNGUIDE' ENTERED AT 10:36:08 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, BIOSIS' ENTERED AT 10:36:30 ON 30 APR 2008

D IBIB ED ABS HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 10:36:30 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, BIOSIS' ENTERED AT 10:36:43 ON 30 APR 2008
D IBIB AB HITSTR 2

FILE 'STNGUIDE' ENTERED AT 10:36:44 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, BIOSIS' ENTERED AT 10:37:00 ON 30 APR 2008
D IBIB ED AB IND 3

FILE 'STNGUIDE' ENTERED AT 10:37:00 ON 30 APR 2008

FILE 'STNGUIDE' ENTERED AT 10:37:03 ON 30 APR 2008

FILE HOME

FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Apr 25, 2008 (20080425/UP).

FILE ZCAPLUS

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20071130/UPIC. <<</pre>

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FILE REGISTRY

Property values tagged with IC are from the ${\tt ZIC/VINITI}$ data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 APR 2008 HIGHEST RN 1018438-06-6 DICTIONARY FILE UPDATES: 29 APR 2008 HIGHEST RN 1018438-06-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

FILE LREGISTRY

LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 22 Apr 2008 (20080422/PD)
FILE LAST UPDATED: 29 Apr 2008 (20080429/ED)
HIGHEST GRANTED PATENT NUMBER: US7367063
HIGHEST APPLICATION PUBLICATION NUMBER: US2008098499
CA INDEXING IS CURRENT THROUGH 29 Apr 2008 (20080429/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 22 Apr 2008 (20080422/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2008
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2008

FILE USPATOLD

FILE COVERS U.S. PATENTS 1790-1975
Produced using data provided by Univentio.

This database was created using Optical Character Recognition (OCR) technology. For this reason, some characters may be missing or mistranslated. In order to improve searchability and retrieval, CA indexing information has been added to the Title, Inventor, and Patent Assignee fields where possible. Please see HELP CASDATA for more information on the availability of CAS indexing in this database.

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 29 Apr 2008 (20080429/PD)
FILE LAST UPDATED: 29 Apr 2008 (20080429/ED)
HIGHEST GRANTED PATENT NUMBER: US2008054177
HIGHEST APPLICATION PUBLICATION NUMBER: US2008098458
CA INDEXING IS CURRENT THROUGH 29 Apr 2008 (20080429/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 29 Apr 2008 (20080429/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2008
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2008

FILE MEDLINE

FILE LAST UPDATED: 29 Apr 2008 (20080429/UP). FILE COVERS 1949 TO DATE.

MEDLINE has been updated with the National Library of Medicine's revised 2008 MeSH terms. See HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

See HELP RANGE before carrying out any RANGE search.

FILE EMBASE

FILE COVERS 1974 TO 29 Apr 2008 (20080429/ED)

EMBASE was reloaded on March 30, 2008.

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Beginning January 2008, Elsevier will no longer provide EMTREE codes as part of the EMTREE thesaurus in EMBASE. Please update your current-awareness alerts (SDIs) if they contain EMTREE codes.

For further assistance, please contact your local helpdesk.

FILE BIOSIS

FILE COVERS 1926 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 23 April 2008 (20080423/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926 through 1968. These records have been re-indexed to match current BIOSIS indexing.

FILE CABA

FILE COVERS 1973 TO 4 Apr 2008 (20080404/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

The CABA file was reloaded 7 December 2003. Enter HELP RLOAD for details.

FILE BIOTECHNO

FILE LAST UPDATED: 7 JAN 2004 <20040107/UP>

FILE COVERS 1980 TO 2003.

THIS FILE IS A STATIC FILE WITH NO UPDATES

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN /CT AND BASIC INDEX <<<

FILE DRUGU

FILE LAST UPDATED: 28 APR 2008 <20080428/UP>

>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<< >>> THESAURUS AVAILABLE IN /CT <<< FILE VETU FILE LAST UPDATED: 02 JAN 2002 <20020102/UP> FILE COVERS 1983-2001 FILE JAPIO FILE LAST UPDATED: 24 APR 2008 <20080424/UP> FILE COVERS APRIL 1973 TO DECEMBER 27, 2007 >>> GRAPHIC IMAGES AVAILABLE <<< FILE PASCAL FILE LAST UPDATED: 28 APR 2008 <20080428/UP> FILE COVERS 1977 TO DATE. >>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE IN THE BASIC INDEX (/BI) FIELD <>< FILE CEABA-VTB FILE LAST UPDATED: 22 APR 2008 <20080422/UP> FILE COVERS 1966 TO DATE >>> DECHEMA, the producer of CEABA-VTB is using a new classification scheme. The new classification schemes are available as a PDF file and may be downloaded free-of-charge from: http://www.stn-international.de/news/cc-de.pdf and http://www.stn-international.de/news/cc-en.pdf <<< FILE BIOENG FILE LAST UPDATED: 3 APR 2008 <20080403/UP> FILE COVERS 1982 TO DATE >>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN THE BASIC INDEX <<< FILE BIOTECHDS FILE LAST UPDATED: 24 APR 2008 <20080424/UP> FILE COVERS 1982 TO DATE >>> USE OF THIS FILE IS LIMITED TO BIOTECH SUBSCRIBERS <<< FILE LIFESCI FILE COVERS 1978 TO 11 Mar 2008 (20080311/ED) >>> FILE COVERS 1964 TO 1982 - CLOSED FILE <<< FILE VETB FILE LAST UPDATED: 25 SEP 94 <940925/UP> FILE COVERS 1968-1982 FILE SCISEARCH

FILE COVERS 1974 TO 24 Apr 2008 (20080424/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE CONFSCI

FILE COVERS 1973 TO 18 Oct 2007 (20071018/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS

FILE COVERS 1861 TO 24 APR 2008 (20080424/ED)

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